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ABSTRACT

The American Association of State Colleges and Universities (AASCU) held the first national Conference on New Directions-New Programs-New Professions in Washington, D.C. on October 10-13, 1971. The goals of the conference were twofold: (1) to exchange information between representatives of AASCU institutions, officials of Federal government agencies, representatives o f professional associations, and representatives of educational organizations regarding the nation's rising manpower needs in the new fields; and (2) to discuss ways in which AASCU institutions can redirect existing resources to better meet new priorities. The conference focused on new careers in the areas of education, environment, health, welfare and community service, justice, library and information services, and government and public service. Corresponding workshops were held for each major area. (Author/HS)

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American Association of State Colleges and Universities

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Today's Education for Tomorrow's Jobs

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FOREWARD

AASCU institutions prepare more than fifty percent of the nation's elementary and secondary teachers. Statistics tell us that there is an over-supply of teachers. According to the U.S. Department of Labor, however, if current trends continue between 1970 and 1980 there will be about 2.4 million openings for elementary and high school teachers, while 4.2 million newly trained teachers will become available to fill them. Meanwhile, positions in law enforcement, library science, social work and many other fields lie vacant for want of trained personnel. Educators, government officials, representatives of professional organizations and associations working together can redirect this trend, and help resolve the manpower needs of tomorrow.

Most AASCU institutions were founded to educate students to meet the specific employment needs of society. Currently, these same institutions are not being fully utilized as a manpower resource for the rapid expansion in new careers. AASCU institutions have many opportunities to expand and/or alter instructional programs to include new careers to more adequately meet the nation's manpower needs.

The first national conference on New Directions-New Programs-New Professions was held in Washington, D.C., October 11-13, 1971. The goals of the conference were twofold: (1) an exchange of information between representatives of AASCU institutions, officials of Federal government agencies, representatives of professional associations and representatives of educational organizations, regarding the nation's rising manpower needs in the new fields, particularly on-going government programs and ideas for future programs and (2) discussion of ways in which AASCU institutions can redirect existing resources to better meet new priorities.

The conference focused on new careers in the areas of education, environment, health, welfare and community service, justice, library and information services, government and public service. For each major area there were corresponding workshops.

It was an unmatched opportunity for the exchange of ideas and problem solving regarding curriculum and program development. The real success and long-range effects of the conference can only be measured by how AASCU member institutions consider the need for change - change for both the good of those individuals who will be stepping into a challenging job market and for those who need their services.

TABLE OF CONTENTS

	Page
Foreward	i
Table of Contents	ii
Introduction	iii
Addresses	
W. Willard Wirtz	1
G. Theodore Mitau	12
Philip R. Teske	22
Panelists	
Robert L. Barre	28
Herbert E. Striner	30
Charles W. Fotis	33
Edward A. Schroer	37
Harold Goldstein	40
Robert M. Worthington	43
Jerry W. Miller	49
Workshop Summaries	
Education	51
Environment	57
Health	60
Welfare and Community Service	66
Government and Public Service	69
Library and Information Services	72
Justice	90

INTRODUCTION

The American Association of State Colleges and Universities is comprised of 289 state colleges and regional state universities, enrolling almost 2 million students or approximately 25 percent of all the students enrolled in higher educational institutions in the United States. We like to say that we are the fastest growing institutions in higher education. This condition has both advantages and disadvantages. A substantial number of today's state colleges and universities began as teacher-training institutions and have undergone tremendous change and development in the last ten years. They have in fact tripled their enrollments in a ten-year period and have moved from their original role as predominately teacher education or technical institutions to become comprehensive colleges and universities in scope and nature. Yet this great change in focus and enrollment has required equally great -- and demanding -- institutional change. Recognizing this, the Association, several years ago, undertook a national project to identify the future role of state colleges and universities, in the belief that there is a distinctive role that these institutions can and should play in the future of higher education.

The role of the community college is fairly well understood. THe role of the large public and private comprehensive university with emphasis on research and graduate education is reasonably well understood, as is the role of the private liberal arts college. The single group of institutions still suffering from an identity crisis is the group of institutions represented at this conference.

This group of state colleges and regional state universities has served the occupational needs of young men and women for over 100 years. As teacher education institutions, they provided the road to social and economic mobility for thousands and thousands of young men and women who might not otherwise have been able to pursue higher education. Teacher education often represented the most readily accessible means for achieving this mobility. We still serve primarily first generation college students -- students who come from families where neigher parent attended co-lege -- and we are therefore still colleges of opportunity. We have begun to find disquieting data about the future employment opportunities for our graduates in the field of teacher education. A recent AASCU analysis of 1980 employment patterns in relation to the degree production of state colleges and universities, specific data in the areas where state colleges are above the median in degree production -- humanities, education and fine arts -- indicates that the demand from 1968 to 1980 is below the median. In areas where the demand is above the median -- engineering, city planning and health -- state colleges and universities are below the median in their curriculum proportions. There are also other interesting and disquieting data in the analysis.

To substiantiate further the immediacy of the problem, a letter sent to members of the Illinois Board of Higher Education and the executive officers of each governing system in the state advised that there is an urgent need for the immediate establishment of educational priorities to preserve the vitality and quality of the state universities. The Executive Director of the Illinois Board of Higher Education stated that significant amounts of new money will probably not be available to finance new programs in Illinois state colleges and universities in the next fiscal year. He went on to say, "We feel strongly that making substantial amounts of money available for new programs is essential to maintaining the high level of quality in our system of higher education." He said that if new programs are to be initiated in the next fiscal year, existing programs, which are of low priority or which, in the words of the statute creating the Board of Higher Education, "are not educationally or economically justified," may have to be phased out or reduced. Member institutions in states other than Illinois are facing similar problems, and because of the urgency of the situation nationally, the Association decided to construct the Conference.

Allan W. Ostar
Executive Director
American Association of
State Colleges and
Universities

UGLY IDEALISM IN EDUCATION

by

W. Willard Wirtz
Director
The Manpower Institute

I am an enemy to keynote speeches. They are by tradition occasions for the passing of rhetoric as a counterfeit for reason by someone who knows less about the subject before the meeting than anyone else in the room. It is true, as Allan has suggested, that my seniority in AASCU matters perhaps matches that of almost anyone in the room. Fifty years ago, my father was a member of the then Northern Illinois State Normal School faculty, teaching Latin, Mathematics, German, and coaching the basketball, football and baseball teams. There were 200 people enrolled at NISNS at that point -- and so few men that the football team could never hold a practice scrimmage. I grew up across the street from the college and watched it grow from the 200 or 250 who were there then to some 25,000 now. It is a particular pleasure that the new President there, Richard Nelson, is a man whom I had as a student in law school.

Allan Ostar referred to my brief go at high school teaching. It was a bitter baptism in the subject of New Programs, New Directions, New Professions, for it meant trying to teach Hamlet and that absurd proposition about not splitting an infinitive to Amelia Pasiskevich, Jada Puskar and George Davidovitch -- all on their way to lifetime jobs with the Boss Glove plant in town or the Kiwanee Boiler works. The problem then was the one we are facing up to now -- 40 years later.

Yet despite that exposure, I do speak this evening as a virtual stranger to a matter with which you are living every day. So I speak at the inevitable risk of laboring what is already obvious to you, and I , therefore, speak briefly.

The conference's concern has already been pointed out. It is a concern regarding the sharp present and prospective changes in what is identified as the market demand for the product which the state colleges and universities are turning out. The basis for that concern is confirmed in the figures which Frank Farner and others have put together, comparing the Department of Labor statistics about occupational needs during the 70's and the projected degree production figures in the state colleges and universities during that same period. Your program notes report that, for example, there will be a need in the next 10 years for 2.4 million new high school and elementary school teachers and there will be, if present trends continue, 4.2 million people trained for those openings; and these figures go on to show a general

mis-match which is the reason for our being here this evening.

The problem is probably a good deal more serious than either our instincts or their statistics suggest. The pace of change in the world has quickened so greatly that it is probably beyond the capacity of the human comprehension to appraise the implications of that change. It is entirely possible that the effects of that change on what we call the manpower situation are at this point totally unrealized. We may face today what is in effect a general overmanning condition, given the traditional ideas and concepts of employment. The present unemployment rate of 6 percent shows signs of being not cyclical, but structural.

I suggest, too, that despite the common use of the phrase there is actually no real "manpower policy" in this country. This is not said in partisan terms. I spent six or eight years trying to put together a manpower policy. We didn't, and there has been little improvement in the succeeding two or three years. We are still treating employment as a derivative concept -- a function of economic growth; not as a matter of independent purpose.

Furthermore, and as Allan Ostar has also suggested or at least implied, the state colleges and universities are at three disadvantages in meeting the impact of change on this particular situation. First, there is the background fact of their extraordinary concentration upon preparation for a single occupation. Second, this particular group of institutions has recently been expanding very rapidly, with the resultant disadvantage of having in most cases a most unwieldy administrative structure. Third, there is not the firm financial base for this group of institutions that there is for most others.

Most serious of all, it seems to me, is the fact that the country is today in a mood of extraordinary discouragement, of divisiveness bred of a number of factors, of fear, of dissatisfaction -- each person with everybody else and with himself. This puts a chill on attempts at innovation and makes the meeting of change harder than it would be under different circumstances.

So we properly start from a recognition that the situation which we are here to discuss is serious in a degree which the statistics confirm but which probably goes beyond what they say.

Where, then, are the elements of hope in this situation?

I see them reflected in the convening of this conference, in the prospect that even possibly as a consequence of desperation the old separatism between education and the rest of the life experience is going to be broken down. Putting it more affirmatively

and positively, the prospect is emerging of a new rationalization of education and of the rest of life with promise of great enrichment of all parts of the life experience. What we have here, reflected in the conference program, is confirmation of the obvious good sense of developing a cross fertilization of different ideas, from different kinds of people, about what is now recognized as a single common subject. This approach seems to me so unarguably right that instead of developing the case for it, I propose -- at the risk of misunderstanding -- to suggest briefly several caveats about it ... in the hope of being constructive.

The first caveat is against educators assuming an attitude of defensiveness about the prospect of change which they are in fact approaching boldly. To be specific, and by way of illustration, the answer last April of the Washington Higher Education Secretariat to the Newman Report seemed to me unfortunate. I read the report with a great deal of interest, but with some reservations; and wasn't sure about the justification for it until I read the answer of the Secretariat. Why be that defensive about something which is obviously open to at least a considerable measure of criticism? You see the same kind of defensiveness in the almost characteristic reaction of the educational profession to legislation which is introduced in the Congress. It seems to me that the profession's support of the National Foundation for Higher Education is hardly more than lukewarm, and it almost looks the other way as far as the proposed National Institute for Education is concerned. It almost appears that unless there is provision of some kind -- revenue-sharing, or something of that sort -- for turning more money over to a particular set of institutions for their own spending, their attitude toward it is one of defensiveness. I contrast that, to make the point, with the extraordinarily effective forthrightness of Commissioner Marland's support of the concept of career education. In that speech last winter he went very far in embracing what is at least in some respects a new concept and approach to this problem. The first "caveat", then is against defensiveness.

Second, it seems to me reason for concern that this conference is limited to new directions and to new programs relating just to new professions. The problem we face here this week is only in small part one which arises in connection with education for the professions. The mis-match of education and career opportunity is worse -- at least as far as numbers are concerned -- with respect to the professions. You obviously have to start some place, and there is plainly more possibility of a transfer of some of your emphasis from teaching to the other professions than there is of transfer in other directions; but the problem is much broader than one of "new professions".

Third, I wonder a little at there being, so far as I can see,

no student participation in a discussion of this kind. I know the difficulties of trying to bring that into the picture; but we would be well advised to try to develop ways of being sure we have youth's views more clearly in mind than I think we have. They are, after all, the immediate clients. They do have some ideas which may take a lot of winnowing, but which are worth it in the end.

Fourth, and on a related point, it seems worth inquiring how much attention is being given to the dissemination of information of the kind that we have before us to the students who are enrolling in the state colleges and universities. It won't do much good if this information doesn't get on through to the customers; or putting it differently, it will do a lot more good if it does get on through to them so that they will know as much as possible about how to make their own choices.

Fifth, and in somewhat more detail, I urge that the prospective reorientation of education take as the stars to guide by not only the employment needs of the society but also the needs ... and the opportunities ... of individuals.

It will be a large and necessary step forward to educate and prepare people for jobs which are there instead of training them for jobs which are not there. But if that step is taken towards something conceived of solely in terms of a "manpower" need, it will be a step into sand ... quicksand. That step will be most effective, including its purpose of meeting the society's employment needs, if it is taken with the broader purpose of providing individuals with maximum opportunity for the best and highest use of the life cycle. These two purposes do not conflict. They are complementary. But it will make a critical, crucial difference whether we put the individual's meaningfulness in the first place or some other place on down the line.

Let me make the point, for emphasis, in perhaps unfairly critical terms ... suggesting our respective contributions to what seems to me too narrow thinking about education on the one hand and employment on the other. The program for this conference starts out with the statement that "most AASCU institutions were founded to supply graduates to meet the specific employment needs of society". Surely we have a higher ideal of education than that. The passage concludes: "educators, government officials and representatives of professional organizations and associations working together can help resolve current manpower needs of tomorrow". Yes, but "manpower" derives with incriminating aptness from "horse power", and that is too much the way we have been thinking about manpower. At other places in this program, there is a reference to the "labor market". There were six and

one half years in the history of the Department of Labor when anybody was subject to discharge ... in a manner of speaking ... if he used the phrase "labor market". It clutters up the realities of human being ... or at least the ideals we profess ... to talk about a "labor market".

My own contribution to this same kind of what seems to me false and dangerous emphasis developed during eight years of participation in the keeping of the employment and manpower statistics They are carefully kept, and unquestionably accurate. But, like all statistics, they remind me of Cervantes' Man from La Mancha saying, just before he goes on to sing about dreaming the impossible dream, that "facts are enemies of the truth".

Four thoughts used to go through my mind every month as we announced, with seasonally-adjusted decimal point precision, the national unemployment figures. One was a feeling of concern about the fact that all the newspaper attention to these reports was directed at a single figure. The press would tell the country that unemployment was 3.4%, or 4.6%, or 5.2%, or whatever it was, without making it clear that this is an averaging of so many different things -- 2% adult white male unemployment, for example, and 20% black youth unemployment -- that unless people would take time to read the fine print -- which they wouldn't -- the one figure was more likely to be misleading than to be helpful.

The second concern was that those unemployment figures were, and are today, always taken as measures of the performance of the economy rather than as a measure of the condition of the people. The truth about this isn't said in public office: that when unemployment gets down to about 3.5 percent, most of the people who aren't working are idle because they aren't equipped -- perhaps through no fault of their own, but nevertheless not equipped -- to do the jobs which are available.

Third, those unemployment figures were always taken as a measure of there being too few jobs for the people who were available, with never a thought of whether the problem was that there were too many people for the jobs. You knew that if a microscope were placed on those statistics they would disclose facts suggesting that an extraordinarily high percentage of the unemployed probably came into this world out of someone's ignorance or mistake. But you didn't even whisper about the possibility of there being too many people.

Finally, the concern which weighed most on my mind was that these figures were only measures of people in places -- one person, one place, undifferentiated ... with no qualitative element at all about it. When the figures showed 3.4 to 6.2 percent

"unemployment", it would occur to me that if what we were measuring were the nonuse of the human potential -- which is what "unemployment" ought to mean -- that figure would probably be some place between 34 and 65 percent ... with no decimal point. I think of this in terms of an experience one day in 1965, when Mrs. Wirtz and I took a plane at National Airport for Chicago. We got on, sat down, took off; and then the public address system came on with that most monotonous dialogue in the history of American letters -- the hostess telling you how glad she is you are on board. Yet I suddenly realized that day that this girl sounded as though she really meant every word she was saying. She made you believe that not only her day but that of the entire American Airlines' personnel had been made by the two of us walking onto that plane. When she came back down the aisle, I said something to her about it. She literally bit her lip, looked away a moment, said, "Thank you," and then added: "I guess from what you say you would probably be interested in knowing that I graduated last winter at the Goodman Theater (the dramatic training school) in Chicago. I tried for three months to do what I wanted to do and think I could do in the theatre. Now I am a stewardess on an airline." I thought as she went on up the aisle about how that girl shows up in our figures as being fully employed. Is she? What we are measuring is just people in places ... nothing at all about the quality of their performance ... nothing of how effectively it meets either their needs or the system's.

What has all or any of this to do with the pragmatics of shifting the training and the graduation of a million or perhaps two million students at state colleges and universities away from teaching to something else? This, is my view of it: That it is critically important that as we direct education ... as we must ... toward preparing people for what they are going to be doing with their lives we have the <u>whole</u> of their lives in mind. That as we move purposefully toward an integration of the functions of education and work we recognize <u>both</u> functions as only parts of the human life cycle. And that we realize that while it is essential to gear education more directly to the society's needs for people's services and to the opportunities there will be for them, those needs and those opportunities are (i) not constant, and (ii) not reliably reflected in projections of present measures of employment and manpower needs.

The ideas of "career education" and the development of a rational "manpower policy" seem to me unquestionably right ... if we define "career" to include all that a person is going to do and be, and "manpower" as meaning the power of man. The conviction that the purpose which inspires this conference is critically important ... that it is crucially essential that the worlds of work and education be brought together ... impels this expressed concern lest the purpose be too narrowly conceived of.

It was wrong to build elementary and secondary education around a curriculum of preparation for a college experience only a few would enjoy.

It was a mistake to pursue an ideal of a liberal arts education which only a few would ever have a chance to make much use of.

It would be equally a mistake to correct those errors by concentrating education too much now on a single set of factors -- job opportunities -- in what is a rapidly changing concept of what people want their lives to be ... and what those lives are probably going to be.

I know that I have gone further than good reason would warrant in being critical of statistical projections of job vacancies as a guide to educational curricula. Of course that makes sense. But it would make sense, too, to factor into this approach some elements not presently reflected in statistics.

We should, it seems to me, factor in the effect of the obviously increasing desire and opportunity in this country for service -- service even beyond the kind of service which is reflected in most of the seven agenda items which you take. I mean service in the nonprofit sense, the instinct for service which is reflected in the way the kids went to the Peace Corps and to VISTA, what is reflected in this subscription to what Ralph Nader is doing. The number of highly qualified applicants for admission to the law schools increased about two or three hundred percent this year over what it was last year. At least part of the explanation is Ralph Nader, for a great many highly qualified young people find a prospect for service in what he is doing. There is a strong instinct for service today. We advisedly ask where it would take us if we were to think our AASCU problem through in terms of what this particular group of institutions can do to meet that increasing impulse to serve.

Suppose we factor into the career opportunity concept, too, the element of increasing leisure. Does this destroy the concept, turning it back into simply a reformulation of the humanistic, liberal arts approach? I don't think so. "Career education" is something more vital than a reaffirmation of the Puritan ethic. It is a significant fact that in the last 50 years in this country the average man has gained 10 years more leisure than his earlier counterpart had. This is another squeaky statistic. It includes a lot of elements: increasing longevity; earlier retirement; longer vacations; shorter work weeks; shorter work days. But the net result is 10 years more leisure than the average man had 50 years ago. You and I are in those statistics, but they say nothing of what has happened to us. It is the blue collar workers' work time which has been cut way down. The

professional, the administrator, the white collar worker has gained virtually nothing as far as leisure is concerned. As the society becomes more complex a smaller and smaller number of people are going to work themselves faster and faster to death at an early age because an increasing load falls on them. But the fact remains that most people in this country have a good deal more leisure than they used to have ... to use or to waste. As part of their "careers"? I think so.

I looked again this afternoon at that little volume by the German philosopher, Josef Pieper -- translated in the early 1950's -- entitled Leisure, The Basis of Culture . Pieper points out in his introduction that in the Greek languate, " 'leisure' is scole, and in Latin scola -- the English 'school'". Our word for school came from those words for leisure. Pieper goes on to note that there was no word in early Greek for work except a-scolia, lack of leisure. How do we factor even two percent of Pieper on Leisure and Culture into our thinking about career education and our reliance on the statistics we have here about the employment trends in this country? We can. And we must.

We ought to factor in, too, the necessity of doing something more about the last part of the life experience. It is our worst nonsense that we are still crossing off the final third or quarter of people's lives, particularly so far as education is concerned. There is probably, in higher reason, as much justification for at least a year or two of education ... yes, even compulsory education ... at age 60 as there is at age 14. So far as what we have done ... or haven't done ... with the life cycle so far is concerned, it would make more sense in most people's lives just to turn the whole experience the other way around: to come in at age 70, to go through that horrible period of nonmeaningfulness first, then to work for 30 or 40 years, then to have the exhilarating experience of getting an education, then to spend just the six years in nothingness at all, and then to let a doctor pick us up and pat us goodbye instead of hello. Yes, I'm suggesting that old age -- the "best for which the rest was made" -- be part of educators' thinking about the careers they are going to be training people for.

Then take this situation as it emerges if we think about "womanpower" instead of "manpower". The most obvious waste we commit is what we are not doing as far as womanpower is concerned. I see about ten women in this room tonight. What accounts for the fact that so small a number of women are at the level of administration in education that is reflected here? Our nonsense about this is built into our language, so that Karen Friedman works her head off getting this conference together and then is brought up here as she was a few minutes

ago to be complimented on doing "yeoman" service! Let's at least include specific attention to the new occupational demand of the woman who is professionally trained, who then marries and has a family, and at the conclusion of that experience wants terribly to get back into things. This is probably a larger prospective demand than there will be for any of these items on the conference list.

Then expand that particular project to take account of all the other possibilities of adult education of one kind or another. Or, still more broadly, take as a starting point a total rejection of all of the fallacies of the time trap concept of living, that life is divided into three parts, to be experienced seriatim -- education, work, and then "retirement". I guess it is fact today that from age 20 on most people become increasingly ignorant with every passing day -- if you take as the measure of knowledge their command of a percentage of the total of known information. We become more ignorant every single day of our lives. There is no sense in packing all of education for everybody into life's first segment. Suppose we start saying what could be done with our excess manpower if we break up those time traps completely and start developing systems of adult education, work-study programs, stop-out programs, and so on ... exchange programs between the worlds of work and of education.

Perhaps I stress the point too much. Perhaps it's fantasy. I don't think so. It is rather the direction in which this conference is already set and in which the society is moving. The worst mistake would be to try to guide the project which brings us here solely by the lantern of immediate manpower needs instead of by the stars of individual and human purpose. If this is idealism, it is "ugly idealism" -- in the sense that Burdick and Lederer wrote about <u>The Ugly American</u> -- who you will remember as the diplomat who had none of diplomacy's gifts except the "ugly" American characteristic of insisting on getting things done.

As for ways and means ... well, being a keynote speaker means not having to worry about details. So only in summary and conclusion ....

It does seem to me important that educators take the offensive -- with a principle that will make people lift their eyes and their hearts and will appeal to their ideals. The country wants something of this kind terribly today. We need a phrase to cover the principle. "New Directions, New Professions, New Programs" probably isn't it. I don't know what it ought to be. Leave "manpower" out of it -- unless there is some way to make it mean the power of man ... and then get women in there too. Get some phrase which links education not just with work -- but with work and leisure and service and life, and which emphasizes

the individual. Maybe "career education" is as close as we are going to come to it, at least for the time being; and the leadership of the Commissioner of Education is an important matter when it is being exercised as that leadership is. We do need a guiding principle and it needs to be at an elevated level.

Second, we probably ought to emphasize strongly and specifically the development in this country of social indicators which will be as complete as our economic indicators are. This can be done. If we take the science and art which the computer now puts at our command, we can figure out things about people's satisfaction, the use of their potential. We could have a set of social indicators which would tell us a very great deal about what percentage of the human capacity is being used, with what measure of satisfaction as far as individuals are concerned. As long as we have economic indicators, but not social indicators, we are going to be economic animals. We do whatever we measure.

Third, I suggest that part of an ugly idealism here is tough, perhaps almost even ruthless administration in the colleges. Any inference that what has been said here is part of a case for open universities, unstructured curricula and that kind of thing is wrong. Part of our problem is that we are running into this passage where change is so important and strong administration so essential just at a time when there is great emphasis on the democratization of authority. It is a fallacy, a pleasant fantasy, that you can achieve the purposes which we are out to achieve now without a very substantial degree of control and planning. We have grown up not liking those ideas. But it is an absurdity that we can accomplish the change which we are looking for today without the introduction of a substantially larger element of control, of planning, and that means very strong administration.

Finally, it seems to me essential that we find the ways of regaining ... with a basis in tough-minded reason ... our self confidence. And I think there is that basis in reason. What has happened to us in the last ten years, and what is very largely responsible for our present frustration, is that we have discovered that a lot of things we had been blaming on some outside force of some kind ... higher, lower, economic, ideological ... was actually our own fault. This is tough medicine to take. We had been thinking that poverty, the poor, "will always be with us," that there has to be war, that we can't do anything about overpopulation, pollution, the rotting of cities. Yet, all of a sudden we have discovered that these catastrophes aren't the result of outside forces at all, that they are actually within our control. Most of what has happened in the last ten years comes down to a realization that the human capacity includes within itself the competence to greatly perfect the human condition. A good deal of our exasperation is with ourselves for not doing

what needed to be done ... and still does.

The other side of this is that we are at a point of realization that there is this competence. The last ten years have seen larger accomplishments by every measure ... technological, economic, social, whatever it may be ... larger affirmative accomplishments than in any other ten years in the history of mankind. This leaves us, ironically, frustrated, bitter, even afraid. Yet there are here equally the elements for the development of a new confidence. Without that confidence, we probably won't get much of any place.

I guess all I have tried to say is that I think the future is still a very good idea, and that this conference is a very important step toward that future.

NEW CAREER CURRICULA FOR THE 1970s: A CHALLENGE TO AMERICA'S STATE COLLEGES AND UNIVERSITIES

by

Chancellor G. Theodore Mitau
Minnesota State College System

For some time now, America's colleges and universities have been vigorously and often quite properly charged with a multitude of failures. The attacks have come from the left, the right, and from the moderate middle.

Our students have charged us frequently with failing to teach them how to handle ideas and how to deal with rapid environmental changes; with failing to be innovative in matters of curriculum; with separating students from life rather than involving them in it; with being degree oriented rather than being interdisciplinary in approach; for letting programs that stress memory of facts rather than their applications in problem solving situations; and for a host of other failings, including that of general irrelevancy.

Other charges indict us with encouraging passivity and compliance rather than freedom and participation; and with being stubbornly insensitive or even hostile to demands for an end to racism, militarism, violence, and poverty.

Our legislators and other elected officials, viewing us from a different perspective, have often been no less critical. They charge us with over-aggressive and expensive building programs; with costly salary ranges; with excessively small class loads; with being overly permissive; with producing too many students in areas where demand for graduates is low; and with an ivory tower provincialism that stifles productivity.

Our townspeople resent the life-style embraced by so many of our students. Many of them are apprehensive of students exercising their new voting power in college communities; and many are doubtful that we are wise enough to spend their tax dollars efficiently.

The fact that the American Association of State Colleges and Universities has planned this Conference, and you, the representatives of the 279 member institutions, are attending such a Conference is in itself persuasive evidence of our deep concern and desire to turn a serious crisis into what may be the greatest educational opportunity and challenge of the last quarter of this century.

We, the members of the American Association of State Colleges and Universities, represent institutions which enroll one-fifth of our nation's college students. We prepare more than one-half of the nation's public school teachers.

The suggestions I make today may not be appropriate to all state colleges and universities. They have been developed to respond to

the needs of our students, our state and our seven colleges ranging in individual campus enrollment from nearly 14,000 to 3,000.

Five of the seven colleges were designed primarily as teacher training institutions. Over one-half of the elementary and secondary school teachers in Minnesota graduated from one of our colleges, and presently we like so many of you face a rapidly declining market for our graduates.

Clark Kerr, one of this country's most distinguished educators once termed our state colleges and regional universities, "America's most restless institutions of higher learning." I think we should be very proud of this designation. It fundamentally reflects a responsiveness to public needs and a capacity for ready adaptability. Our state colleges and universities -- as academies, normal schools, teacher's colleges, and multipurpose institutions -- have had a long and proud history of public service as they responded effectively to the changing needs for competently educated manpower. As our colleges have become increasingly aware of the shrinking job market for new teachers, their curricular and guidance programs began to reflect the need to present to students the problems of placement as efforts intensified to obtain a better balance between teacher demand and supply.

Included in these endeavors to adjust to the realities of the market were such measures as closer screening of applicants for teacher education, greater emphasis on retraining of teachers in subject areas where severe shortages still exist (such as learning disabilities) as well as the redirecting of candidates into counseling and towards the growing opportunities for informal teaching-type of work in urban rehabilitation, community development, and involvement with leisure-time programs where increasing numbers of our men and women could find useful and meaningful employment.

Much more, of course, is being done, and still needs to be done, if our colleges are to address themselves with greater effectiveness to the many fundamental questions concerning the future manpower needs of the nation.

Those of us charged by our legislatures with the responsibility for guiding higher education would wish to reflect on some of the particular contributions that our institutions might now be able to make towards the development of alternative careers to teaching. The interest in public service, the dedication to advance knowledge, and the eagerness to improve the quality of life -- motivations so widely shared by the men and women who like to become teachers -- are enormously valuable resources for social reconstruction that our states and nation can ill afford to waste. The need to enrich our educational options thus challenges our imagination to come forth with proposals that might generate enthusiasm not only among students already on our campuses but also among those many

men and women in our colleges and universities who seek viable alternatives to teacher education. But in doing so what educational model should we follow? What identity should our state colleges and universities acquire?

Most of our colleges are truly mass institutions. Many have grown into large institutions primarily in the last 25 years. Yet in our journey from normal schools and teachers' colleges to a greater liberal arts and multi-purpose emphasis many of our colleges are still seeking a sharper institutional focus or identity. In this search, some have become junior universities. Others are not so sure that the traditional university is the best model. Many of us like to be referred to as the developing colleges and regional universities. It might be contended that our state colleges and universities are now sufficiently strong and stable to develop their own unique curricular models based on our own history, the aspirations of our students and faculties, and the needs and requirements of our society.

In this connection I would like to repeat to you the invitation I extended to students, faculties, administrators, and Board members of the Minnesota State College System this past August. I challenged them to join in a dialogue and explore the possibility of adopting "New Curricula for New Careers". These curricula would hopefully be attractive and relevant to students who would wish to combine practical internship experiences with the more theory-oriented classroom work and to earn a degree other than the traditional Bachelor of Arts or Bachelor of Science. It is in four broad areas that we might begin to develop such pilot programs:

In Health Care
In Human Services
In Business Systems
In Environmental Control

While the precise academic course work that would support such curricula would have to emerge from joint planning efforts by appropriate faculties, students, and off-campus professionals, education for new careers might include certain characteristics....

....Emphasis would be given to the development of the ability to work with people of different backgrounds, social settings, cultural attachments, political interests, and intellectual viewpoints for the purpose of bridging the chasms of class and caste, of races, and of generations as our society attempts to reintegrate the polarized centers of dissent.

....Students enrolling in these broadly defined areas would be able to combine skills acquired in vocational schools, junior colleges, or on-the-job experiences with further education in both specialized and general education.

....Learning -- special and general -- would emphasize the development of problem-solving skills rather than a narrow expertise; the focus would be interdisciplinary rather than disciplinary. If we are to train students for the future we must provide them with the capacity for continuous learning so that as job requirements change individuals are able to adapt. The knowledge explosion and the rate at which current information becomes obsolete have rendered impractical an education that teaches specific facts as ends in themselves. Rather, students should have an awareness of the information that exists at a given time, the knowledge of how to retrieve it and to evaluate it, and the ability to use it in the decision-making process. In brief, students need a kind of education that permits them to deal with rapid change rather than one that provides a set body of knowledge.

....A bachelor's degree in the four areas mentioned (or other areas that might be defined) would be obtained in three calendar years and include an internship with credit for on-the-job training in a hospital, government department, industry, or social agency.

....A program-based budget would make more explicit resource allocation, hopefully facilitating more sophisticated cost-benefit considerations while at the same time making possible the kind of fiscal flexibility that might be more supportive of curricular innovation.

Students entering new careers, whether in health care or human services, business systems, or environmental controls, might be the type of men and women who would be eager to enlist their competencies to battle pollution in the air, in water, and on land; who would wish to help rebuild our cities, towns, and neighborhoods; who would work to improve our law enforcement and criminal justice administration; who would wish to strengthen management systems in business or government or who would be able to offer constructive guidance to the disillusioned and disheartened victims of social injustice.

Far from pointing towards the stereotyped view of vocationalism, these new careers would challenge the idealism of our young men and women by demonstrating to them how they can enlist the discipline of skill and the dignity of work not merely for materialism but in behalf of causes and commitments that transcend personal gain or acquisition. Rather than diverting students from their genuine concern for the fulfillment of the American promise these new careers might offer a bridge between aspiration and action, between the ideal and the possible.

Even though this "invitation to dialogue" was extended less than two months ago to the Minnesota State College Community, the response has been remarkably supportive -- even enthusiastic. Legislative, Congressional, news media, and Department of Health, Education, and Welfare representatives have all extended much

needed encouragement.

All seven of our System's college presidents have indicated unanimous support of the thrust of this argument and of the need to move forward aggressively. Their support can be best symbolized by remarks made to the opening meeting of the faculty at Mankato State College by the College's President, James F. Nickerson, who also serves as a Director of the AASCU. In that speech, the President of our System's largest campus, told his colleagues to meet the challenge and "to move and to move quickly to improve our education and services; to relate them to the world of work; to make them readily available to a much wider clientele.

He went on to say: "These are bold steps I ask of you: 1) to explore the cutting edges of collegiate change, 2) to make serious evaluation of the promising ventures, 3) to make immediate plans for a major and searching review of every program, every course and every effort of the institution, and based on these reviews, 4) to withdraw from present programs five percent of the staff positions and staff support to be redirected to new effort and, 5) that we create a representative task force to coordinate our explorations and evaluation of the new.

Within one week of President Nickerson's speech, fifty-five faculty members had submitted letters of interest to participate in activities of the College's Task Force on Change which will guide the new programs.

The Minnesota State College Student Association, the system-wide student government organization, passed a resolution last week to "support and encourage the object of bringing 'new careers' curricula into the state colleges."

This student concern is particularly reinforced by U.S. Labor Department projections reported in the October 5, 1971 issue of the Wall Street Journal:

> In the 1970s there will be a demand for 183 percent more systems analysts, 93 percent more urban planners, 67 percent more social workers and only a 3.3 percent increase in the demand for elementary school teachers.

The President's Manpower Report of 1971 projects a deficit of 400,000 allied health workers by 1980. This does not envisage improvements in the necessary levels of health care which the public is demanding.

In addition to the welcome support of these many groups a locally based foundation has granted us a substantial allocation to assist the colleges in developing new career programs as alternatives to teacher education.

As in other states, some of our faculties have already moved in the direction of these newer career options. For example, we have existing programs in law enforcement and criminal justice, in computer, drafting, electronics, mechanical, medical, and photographic technologies, and in traffic safety education. One of our colleges is in the process of proposing a Bachelors in Vocational Technology. New programs in social services and social work at other colleges emphasize the development of problem-solving skills, have a multi-disciplinary orientation, and include the opportunity for internship and field experiences. Other programs include a new environmental studies major.

Our most agressive innovation to date was the establishment this summer of an entirely new college -- Minnesota Metropolitan State College. The Minnesota Legislature in its desire to keep our state in the forefront of change authorized the new college with the expressed intent that it be a distinctly different kind of institution, unique in Minnesota, and with features peculiarly suited to serve as a pilot for the development of the new careers concept.

Among the characteristics of the college which set it apart from many other institutions of higher education are the following:

....Minnesota Metropolitan is "pro-city". The curriculum, both professional and liberal, will focus on the needs of the city and on giving students an understanding of how to live and function successfully in large urban areas.

....The College will not have a formal campus. Instead, the college is located wherever there are people and an environment conducive to learning. Class will be held in existing factories, museums, parks, churches, schools, and offices.

....Degrees will be competence-based, awarded on the basis of what students can do.

....The College will run throughout the year, every day of the week, around the clock, or whatever time is convenient for its students.

....It is primarily an upper-level college. It will provide the equivalent of the last two years of an undergraduate degree to transfer students from metropolitan area junior colleges and area vocational-technical schools; adults who have dropped out of college but who have the desire to complete degrees; and adults who have achieved the equivalent of the first two years of college through work or other experience.

....The faculty will include a core of full-time teachers with conventional academic credentials as well as professors

without conventional academic credentials but with the knowledge, insights, experience, and the commitment to which students respond.

Inevitably, however, curricular shifts of this kind raise important questions and issues. For example, if our colleges in the months and years to come were to embrace these new career programs we would have to accommodate students with much wider divergencies in age, social backgrounds, and educational experience.

With the demands for austerity by the public and by legislators, we cannot expect significant additional support. We may be forced to discover new ways of improving education within presently provided resources.

Whatever the detail of curricular adaptation and change, we will have to be prepared to admit a variety of other concomitant developments in the years ahead.

....Requirements as to college admissions, course distribution, credits, and academic calendars will become more flexible.

....Our institutions have an enormous contribution to make in beginning to recognize experience of a non-academic nature in granting degrees and academic credit. We must honor off-campus learning experiences. This is very complicated. We have few standards or guidelines for evaluating or assessing experience.

....Greater responsibility for learning and organizing knowledge would shift from the formal professor-dominated classroom situation to the individual student.

....Students will increasingly seek out internship opportunities to combine the more practical and problem-oriented off-campus learning situation with the more abstract, theoretical offering of the classroom.

....Instructional personnel will include a growing number of adjunct professors -- men and women who, while not possessing the customary academic credential of professoriate, can offer a totality of expertise, competence and experience that can greatly enhance educational quality. These people must also be brought into the curriculum planning process.

While such a list can make no claim to being exhaustive, even these few projections point to a future concept of the respective roles of faculty and students, of campus and curriculum, which is quite different from that now widely accepted throughout our systems. It will require the exercise of great skill, good judgment, careful planning, and much wisdom by all components of our system if severe tremors are to be avoided and necessary adjustments realized. Thus the new curricular changes must

respond to the new needs of both students and society within a framework of respect for legitimate professional concerns of faculties and administrators.

At this point it might be appropriate to add a caveat lest our missionary zeal delude us into thinking our approach will meet all aspects of today's higher education crisis. If curricular innovations are taken in isolation, we will do little to solve the educational challenges. Whatever the precise nature of programmatic changes they must become part and parcel of the broader spectrum of structural and curricular reform which would have to encompass much of the following:

....the establishing of rules and regulations which will identify clear-cut authority and responsibility so that every component of the collegiate community will be heard and given a voice in decision-making.

....the sharing of increasingly scarce resources after appropriate curriculum review of both graduate and undergraduate programs in order to eliminate or consolidate programs which are too costly to duplicate at each institution within a system.

....the demanding of a more effective and fair evaluation of faculties and administrators.

....the implementing of better communication within a system or institution between administrators, faculty, students, and civil service personnel.

....the recognition that our primary goal is to serve the student and society and not to assure faculties or administrators an unqualified continuance of the status quo.

....the movement toward management information systems, assessment measures and program type budgets that will assist our colleges and universities with the kinds and quantity of data without which sound decision-making is no longer possible.

Curricular experimentation or innovation is never easy. There will be many critics. There will be many misunderstandings. There will be those who will charge us with cheap vocationalism. There will be those who will charge us with destroying the liberal arts -- the search for the good, the true, and the beautiful. There will be those who will charge that education cannot be confused with experience. There will always be learners and teachers who view education as an end in itself and who do not want a job centered education. There will always be students who treasure the liberal arts. And there will always be problems in assessing experience and translating it into formal academic credits or norms.

But this proposal does not seek to displace the Bachelor of

Arts degree and liberal arts programs. This proposal does not seek to depreciate the Bachelor of Science degree with its attempt to combine a general and professional education. This proposal does not seek to discontinue curricula for the many pre-professional programs in law, public administration, engineering, medicine. This proposal also does not attack the concept that our types of institutions should be engaged in graduate work especially leading towards Master of Science, Masters of Arts and the Doctor of Arts degrees. This proposal does not mean we should stop preparing teachers or fail to upgrade our teacher education programs.

What is important throughout this dialogue is that we continue to welcome new ideas, new approaches, new methods of teaching, the building of bridges between campus and community, and greater participation in curriculum building by students and non-professional teachers -- by the men and women who have, through their careers in business, industry, commerce, government, and social agencies and labor organizations given proof of their creative and organizational talent.

What is important is an attitude that welcomes change; a commitment to explore new approaches. We are looking for enrichment to meet the needs which have not generally been met by our existing college curricula.

In a very real sense the next decade offers a remarkable opportunity for developing state colleges and universities to assume a leadership role in higher education that properly belongs to them.

If they are willing to make some of these critical changes, these institutions could truly become a leading force in American higher education throughout the 70s and 80s.

There is good reason to believe that our institutions can indeed respond to this challenge for reasons peculiarly indigenous to their organization, orientation and missions.

The American state colleges and universities....

....possess a flexibility of curriculum and staffing patterns that is often lacking in institutions with a primary graduate and research orientation.

....have always been close to the people and to their needs for public service.

....can serve well as resource centers of communities and regions.

....enroll a majority of students which are frankly and

firmly committed to a career-centered education.

....are presently actively engaged in critical self-examination and clarification of their role and function.

There is nothing wrong for America's state colleges and universities to be viewed as the Avis of higher education in the 70s. They try harder.

While it would be most inappropriate to expect our colleges and universities to solve this nation's underlying and very fundamental employment problems, it would be irresponsible for our colleges and universities not to provide the problem-solvers of the future. We will always need more men and women who can think well and act wisely, who can dream and work, who can articulate ideas and show compassion, who can give of themselves in order to enrich their neighborhood, their country, and the world.

Such men and women have learned that by enriching others, they enrich themselves. By making life more meaningful for their fellows, their own lives become more precious and more meaningful. Only in this way can man add new dimensions of brilliance to every day's hour, and to every moment of his existence.

22

INSTRUCTIONAL SYSTEMS FOR THE EMERGING CAREERS

by

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The faculties of the 280 institutions holding membership in the American Association of State Colleges and Universities are to be commended for addressing themselves to the important topic of "New Directions-New Programs-New Professions" as they seek to meet the educational needs of individuals for employment in our socio-economic system. The needs of our society are changing. If our state colleges and universities are to fulfill their obligations for our society, these institutions must change. The alternative to change is to perish because of obsolescence.

Seeking the best alternative ways and means of preparing individuals -- the young, the older youths, and the adults -- for changing and emerging careers in education, environment, health, welfare and community services, justice, in government and other public services, and in other occupational areas is a challenging task. Each of your institutions has at least three alternative ways and means for accomplishing the task. (1) You can modify existing instructional systems by deleting the obsolete and adding new instructional content, instructional materials, modifying facilities, changing methods of instruction, etc. (2) You can develop alternative instructional systems through the research and development methodologies. (3) You can adopt instructional systems already developed or being developed by others. I am not personally knowledgeable about the budget, staff facilities, etc. of each of your institutions but I strongly suspect that for most of you either modifying your existing instructional systems and/or adopting already developed systems are the better alternatives to change -- at least, these two alternatives are usually less expensive and faster to operationalize than the development route. Thus, my purpose today is to familiarize you with some developed or developing instructional systems designed to prepare persons for employment in changing and emerging career areas.

Each of your faculties are responsible for meeting the needs of the present and prospective students of your institutions. Some of the instructional systems I shall refer to are designed primarily for students in the 13th and 14th grades -- technician training -- but that should not preclude the offering of these instructional systems by your institutions -- after all, there is a tremendous demand for well trained technicians in many career areas.

Under Commissioner Marland's leadership, the Office of Education is pursuing eight aims or objectives in serving and supporting the teachers and school administrators of America. (1) The Disadvantaged -- The Office will continue to devote its resources

to redressing the balance in the Nation's patterns of educational opportunity. No student should be denied an education that will grant him access to the fullest possible share in our national life. (2) The Handicapped -- The Office will try to substantially increase the numbers of children receiving direct and specific help in overcoming physical, mental, or emotional handicaps. (3) Career Education -- The Office is committed to giving people at all ages more choices of and better preparation for careers. This means extending and improving elementary and secondary school programs so that all those who finish high school will be prepared for meaningful work directly from high school or for work after college. It means developing new and positive attitudes toward the whole range of occupations in our society. And it means extending the range and improving the quality of career development opportunities for people beyond high school age. (4) Innovation -- The Office will increase its efforts to assist with the reform and renewal of educational systems. We aim to help institutions install and use tested and promising educational methods and tools. (5) Desegregation -- The Office is moving forward in helping school systems to correct racial isolation to achieve quality education for all persons as it should be in a free, fair and equal society. (6) Right to Read -- The Office will continue to press forward on the Right to Read Program. (7) Management -- The Office remains committed to operating through the Federal-State-Local partnership and to supporting improved administration at all levels, including the federal level. (8) Education Revenue Sharing -- The Office of Education, and all educators, will be able to serve all the above ends to an even greater degree when Congress enacts the President's proposal for Education Revenue Sharing.

Each of the instructional systems for emerging careers that I shall refer to has been or is being developed by institutions such as yours with the assistance and cooperation of the Office of Education through its National Center for Educational Research and Development.

1. Dr. Orville E. Thompson and his co-workers at the University of California, Davis have very recently completed a study, "The Determination of the Proper Allocation of Functions and Responsibilities in Institutions Providing Education in Agriculture". Education in agriculture at the college level is about one hundred years old. It has been a part of the secondary school system for about fifty years, and entered the community college system about 25 years ago. Growth and changes in the agricultural industry have been so dynamic that the adequacy of the present educational systems to meet the industry's needs have been questioned. The study had six objectives. Two of them were (1) to develop guidelines to determine current, emerging, and future curricula needed to prepare workers for agriculture; and (2) to develop criteria to determine where public instruction in agriculture should be

located, and what emphasis is needed. The end product is a plan for education in agriculture for the State of California. I might point out that in California about 275 high schools offer agricultural instruction for about 32,000 students, 36 community colleges offer instruction in agriculture for about 6400 students, 4 of the 19 state colleges offer agriculture for about 2900 students, and 4 of the campuses of the University of California system offer agriculture. Your Association's Committee on Agriculture should find this study of significance to their work. I submit that many of your states need to do similar studies in the various discipline areas.

2. The Technical Education Research Center at Cambridge, under the leadership of Dr. Arthur Nelson, is conducting four instructional system development projects focused on preparing persons for employment in emerging occupations in general, and specifically for four occupations: nuclear-medical technology, electrical-mechanical technology, laser and electrical-optical technology, and bio-medical equipment technology. In total, the four studies are designed to yield three end products: (a) a methodology for developing instructional systems for new, emerging occupations, where traditional job analysis procedures can not be used as a base for determining knowledge and skill requirements, (b) the "core units" of instructional systems for the new, emerging technologies, and (c) a specific two-year curriculum of 20-25 courses for each of the four technologies. The four field-tested curricula are in various stages of development. Five volumes of the teacher and student materials for the electrical-mechanical technology curriculum are now available from Delmar Publishers.

3. A study, "The Development and Validation of Instructional Programs for the Allied Health Occupations" is underway at the University of California at Los Angeles. The study involves the design, development and field-testing of instructional systems for the preparation of technicians for some thirty plus job titles in the allied health field. Also included is the development and field-testing of a pre-technical program in allied health for students in grades 10 through 12; and the adaptation of the technical materials for the pre-service and in-service training of adults. As your colleges seek additional areas for technician and adult education, I suggest you consider offering training in the allied health areas -- areas having many excellent employment opportunities. Several publications are now available from this project. Others will soon be available from commercial publishing sources. Dr. Melvin Barlow is the project director. Your Association Committee on Allied Health Professions should find this study of interest.

4. Dr. George Eastman at Kent State University is nearing completion of a study "Police Education in American Colleges and Universities: A Search for Excellence". Among other objectives,

the study is designed to recommend appropriate roles and programs for two-year and four-year post-secondary institutions offering programs in law enforcement.

5. In cooperation with the U.S. Navy, the Office of Education supported three significant studies at the U.S. Naval Academy on multi-media instructional methods. The New York Institute of Technology in the study, "Development of A Multi-Media Course in Physics," prepared and tested a model for the design of an individualized, entry-level science course in which the learning content is defined in measurable terms, optimally sequenced, and structured for most effective utilization and presentation. The Sterling Institute in their study, "Development of a Multi-Media Course in Economics", prepared and field-tested a model for the design of an individualized multi-media course in economics in which the learning content is defined in measurable terms, optimally sequenced, and structured for most effective utilization and presentation. Perhaps the most significant finding of the three studies was the delineation of the problems involved and procedures used in defining measurable performance objectives for each of the three courses. The report of the Sterling project is particularly valuable on this point. Mr. J. Sterling Livingston served as the project director for the Sterling Institute project.

6. Most of your institutions began as colleges to educate teachers and many of your institutions continue to have teacher education as a major thrust. I suggest you look at two recently completed studies in this area. Mr. Wendell Russell and his co-workers of the Oak Ridge Associated Universities, working with the University of Tennessee, conducted a study, "An Experimental Pre-Service and In-Service Program For Training Vocational and Technical Teachers," in which curricula were developed, field-tested and operationalized for the pre-service and in-service up-grade training of vocational and technical education teachers. One aspect of the study focused on the training of highly skilled, technically competent Military Veterans as teachers. More than 250 individuals have now completed this training program and are in the schools as certified teachers. Dr. John Feirer at Western Michigan University, Kalamazoo is completing a project focused on the utilization of the facilities, staff and counseling services of Community and Junior Colleges in an articulated program of industrial teacher preparation in cooperation with four-year colleges and universities. Three documents have resulted from this study, (a) "Partners In Industrial-Technical Teacher Education -- The Cooperative Roles of the Community -- Junior Colleges and the Senior Institutions" (b) "Handbook for Counselors" and (c) "A Guide For the Transfer Student".

As you may have concluded from the above, the Office of Education has assisted with a variety of instructional systems

development activities pertaining to preparing individuals for employment in emerging occupations. There are many other projects I could have mentioned in areas such as social services, aerospace education, justice, etc. The last R & D project I want to tell you a bit about is a project in which one of your Association directors, Dr. Stanley Heywood, President of Eastern Montana College, has played a very significant role. I refer to the "Glasgow Project" -- more correctly, the "Mountain Plains Regional Education Center" located at Glasgow, Montana. In my judgment, this activity can and will make a very significant contribution to improving the educational opportunities of youths and adults on our farms and ranches and in the small towns that constitute "rural America". The Center's career education programs are being designed to serve all the people in the six-state High Plains-Rocky Mountain Region. This is an area that is sparsely settled, largely rural and small town, with under-employment, under-education, under-training, poor health services and some malnutrition. There is a net loss of population, a deterioration of human, institutional and economic resources. The Center's activities will focus on four general goals. They are (1) improving the employability of individuals, (2) improving family living and community development, (3) improving the health and general welfare of persons, and (4) improving the economic functioning within the region. The educational activities of the Center will utilize the community school approach and be based on a career education philosophy. Thus, the Center will provide education from pre-school through adult levels, with special emphasis on career education. A board of directors consisting of three chief state school officers, three state directors of vocational education, three representatives of Governor's offices, three representatives of Indian tribes and one representative of the Greater Glasgow area serve as the policy-making board for the Center. Dr. Robert Heger is serving as the project director. This project should be of great interest to your Association's Committee on Career Education and to those of you interested in career education.

Before closing, I want to tell you about the unsolicited Applied Research Program being conducted by the Office of Education. The unsolicited Applied Research Program covers creative projects directed toward solving pressing national educational problems. Decision-oriented studies, exploratory projects, design efforts, and small-scale developmental activities are included. The Program is particularly receptive to projects which have high social significance and present major alternatives to existing educational practices through the development of prototypes, models, and technology. The Program supports projects covering a broad spectrum of activities ranging from preschool through higher, adult, and vocational education. Approximately 30 projects, averaging $100,000 and up to 18 months duration will be awarded during the 1972 Fiscal Year on the basis of national competition. Talented

investigators from any discipline or field, at colleges, universities, State departments of education, local schools, and other agencies or organizations from the public and private sector, both profit and nonprofit, are encouraged to consider this program. Proposals will be reviewed by non-Federal panelists selected for their competence in applied research methodology and related disciplines and fields. In addition to the standard NCERD review criteria, the Applied Research Program will pay particular attention to proposals which present major and unique alternatives to existing educational practice and are of national and social significance. The target group to which the proposal is addressed should be clearly identified, and the usefulness of the contemplated product to that group should be made clear. Guidelines for the Applied Research Program may be obtained from the Applied Research Branch, Division of Research, U.S. Office of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

SOCIAL, CULTURAL AND ECONOMIC
EFFECTS OF CHANGE

Robert L. Barre
Developmental Consultant

Secretary Wirtz admonished us to think in terms of education in a broad and profound sense, in equipping people for full operation of a broad and perceptive life. Chancellor Mitau suggested that despite that need, preparation in fulfilling the roles that society needs to have performed is also required. Society has been growing more and more heterogeneous; it has been dissolving into an ever-increasing multiplicity of purpose-oriented groups.

We find in conjunction with this a lowering of the ability to communicate between the groups, not simply in language, but in a subject which is conceived as important from one group to another. I suggest that one of the happenings in our society is the lowering of our ability to transmit the culture from one generation to another -- a lowering of our ability to socialize the young through an intergenerational type of socialization so that the older teach the younger how to perceive existence and how to confront it. This is a socialization which has thrown more into peer groups so that the young are faced with having to invent culture: deprived of being extended the learning of the past, having to live the established new learning, new prescriptions for conducting their own conduct and for seeking their own mode of solving the problems of life. The result are modes of conduct which we have tended to call delinquent and are at variance with the conduct generally accepted by the older portions of the society who had more of the culture extended to them than we are currently doing with the young.

I suggest that the process I have described is not new. But perhaps we are in a continuous program of this type in which our current children are being socialized to the extent that they are by parents who have themselves been inadequately socialized. This is partly, undoubtedly due to the great changes that have taken place within the society, shifting us rapidly from a rural to an urban, industrial type of social organization so that our young grow in an environment requiring the participation of one set of understandings and skills; marry and raise a family in an environment that requires a completely different set of such skills. We know in the past generation that at least 40 million of our population have shifted from this rural to urban environment with almost no institution for assisting them to make the bridge in assessing the needs of the new environment and learning how to live with it.

That definitely is the role of education. It has been the

role of education since the inception of the country. Since the initial role was one of seeing to it that the Constitution which was offered to us could be effectively implemented, education filled the bill and that universal education was required. Education fulfilled the next complementary role of adjusting the society to economic production. It again filled the bill by expanding as we acquired our economic skills and shifted from human production to machine production by teaching us how to organize ourselves for more effective economic production. We began to conceive of services as being essential forms of economic production. Secretary Wirtz asks us now to have education fulfill the bill of extending the parameters of human capability.

I think education has another role and that is on the research side of education: to perceive a means of confronting the problem of inadequacy or failure to transmit and develop a homogeneous culture. I realize that the institutions you represent cannot become mothers and fathers of many of our children, but you can perceive of the creation of institutions which might fulfill the roles that our families once were responsible for. Then perceive of the tasks to be performed within those institutions and from that attempt to devise adequate curricula for facing those problems.

MANPOWER IMPLICATIONS OF CHANGE

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We stand in grave danger, as educators, of being faulted on the basis of faults which will show up in another sector of our society. Because no matter how much you wish to innovate, no matter how many bright ideas you come up with, and no matter how many credentials you are willing to change, in the final analysis unless you have the physical facilities, unless you have the plant and unless you have the money I predict that in about four or five years American education will once again have the finger of scorn pointed at it as not having produced what it should have produced.

No matter how high your hopes and aspirations are and no matter how innovative you are, we really have to understand one simple basic fact of life. I hope that this organization, if it does nothing else, begins to point the finger at some of the individuals who have been on the offense and who have been most offensive in terms of pointing to the educator as being the fault of problems in manpower, problems in productivity and whatever else you may wish to look at.

I'm talking about the fact that most of the state legislators, most of the individuals who are the policy makers in the Federal governmental agencies are not committed to providing the support necessary to do all of the things which they are urging us that we must begin to do. We cannot begin to reach out and develop personalized instruction. We cannot begin to use the advantages of educational technology, we cannot begin to build cable T.V. programs. We cannot begin to develop new approaches in terms of individuals and groups who need and want education and can use education, unless adequate funds are made available.

A friend of mine from the Office of Education accused teachers' colleges and the Department of Education of our University saying, "You people have overproduced. You have a surplus."

I said, "I'm going to ask you a question which I don't think you're going to want to answer. Do you think we would have a surplus of teachers today in this country if all of those brave new programs that I recall over the last four years that talked about the right to read, reaching out to problem children, developing an entirely new approach in terms of counseling, and teams of teachers working with counselors really had been funded as you indicated they would be funded at the state and federal level? Do you really think we would have been suffering from a

surplus of teachers now?"

As I suspected there was no answer. I think the answer is obvious. We talk about the marketplace; but let me just suggest to you that this marketplace is manipulated to a great degree by a major factor called government. If tomorrow this marketplace were turned on in terms of doing everything that we talk about, in terms of our innercity youths, who are graduating from high schools as functional illiterates, if this marketplace were turned on by adequate funds from state legislative bodies, which keep urging our public institutions of higher learning to do a better job and develop re-entry systems for adults, then we would begin to understand that a part of the fault at least lies with those agencies which have not yet stood ready to assume their responsibility of funding the programs they are crying for.

I had a friend some years ago who was a chancellor of a major state university in the midwest. Every year he used to go to the state legislature with three budgets: the A Budget, the B Budget, and the C Budget. The A Budget: if the people of the state and their representatives in the state legislature really meant what they said about having first rate education for their children; if they wanted to stand still, not improve but not lose ground, the B Budget; if they wanted the system to begin to drift backwards the C Budget. He never really got very far below a slightly B+ budget, but the important point is that he was willing to stand up and take the position that as a professional educator he could not manipulate his faculty, his administrators and his students with less and less funding and turn out a product which he was willing to accept as a worthwhile product. He intended for the people of that state to understand it.

One of the things that we're going to have to do is to exert some pressure on funding bodies and use whichever groups we can to develop proper political leverage. We have to begin to understand that you can't educate an individual once in his lifetime for all the technological changes and for various careers throughout his lifetime.

The state college and university must be seen as a re-entry system. Not an entry system where we produce graduates. It must be a program into which people continue to return as the need is indicated by changes in the society. We really have to develop a program where the individual in our society is entitled to return into the educational system in order to develop further skills in his career or to retrain for new careers if this is what he wishes. To make this realistic we are going to have to personally subsidize each individual to perhaps as much as 50 or 75 percent of his last income with some ceiling. The Federal Republic of Germany enacted a program on June 25, 1969 for the Employment Promotion Act. This program provides to each and

every adult German the right to return to an educational and training system for up to two years in order to increase his skill level or to change his skill if desired. These retraining programs are absolutely free with a sliding scale guaranteeing as much as 90 percent of his last income for the full period of two years.

At the present time there are 250,000 German adults now involved in full-time educational and training programs receiving an average of 75 percent of their last income. It doesn't help a 40 year old adult to tell him to return into the educational system and gear up for the new technological changes and we'll defray all of his direct costs for education unless you can also permit him to provide the means for shelter, food and clothing for his wife and probably one child. I recall attending graduate school in 1947 under the G.I. Bill. All of my costs were paid and I was receiving an income of about $110.00 a month.

I'm suggesting two things. One, we really begin to put the bite on the governmental agencies which are urging us on, but not providing the support to do what we must do in terms of innovative programs.

Secondly, that the model we are looking for in terms of our future roles in this society will be a model which moves heavily in the direction of adult education and with a re-entry philosophy for all individuals who wish to re-enter the training and educational program.

Thirdly, that we begin to urge our governmental agencies to consider what we learned under the G.I. Bill and not only provide free education, but education with a subsidy which really makes it realistic for the adults who wish to re-enter the educational system.

In Germany, they use their unemployment insurance fund. The same thing we have. The interesting difference however is that the Germans think it's terribly logical to use their unemployment insurance benefit fund to prevent unemployment, while we'd rather keep reserves and use the unemployment insurance fund to pay people after they become unemployed.

I'm for innovation. There are enough educators who know where they want to go, but unless the funds and the support is made available to move in that direction, I don't think we're going to be able to get very far.

THE IMPACT OF CAREER DEVELOPMENT THINKING ON MANPOWER PLANNING AND PROGRAMMING

Charles W. Fotis
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Department of Defense

We have come to recognize the importance of science and technology as change agents. Science, in its unrelenting quest for verifiable knowledge by which man attempts to understand himself and his environment better, is a powerful motivational force for change. Technology, by definition, makes change the end-product of its efforts.

The drive to apply knowledge to meet human needs results in change. We have been witnessing a tremendous interaction taking place between science and technology. The products of technology are making possible scientific knowledge hitherto considered to be impossible. Additional knowledge is opening up the doors for technological change and greatly broadening the horizons of technology.

The impact of all of this is that science and technology have greatly increased the rate of change. It's enormously deepened the penetration of the change and has vastly magnified the scope of the change. The changes in turn have a tremendous impact on individual, organizational and societal goals.

Science and technology have created new goals, modified existing ones and made others obsolete. Now, in turn, organizations, society and individuals must come to terms with these changes. Failure to do so will produce the kinds of problems that we are witnessing at an ever-increasing rate today. The longer the delay in coming to terms with the changes that are being made, the more difficult will be the change and the more traumatic will be the experience.

Organizations must make adjustments to the process by which material resources and human resources are applied and directed for the achievement of its goals. The process that we are talking about is management or administration -- administration with a capital A.

This includes personnel and manpower management -- that portion of the managerial process which deals with a human resource.

There's a growing appreciation that the application of human skills for the achievement of federal organizational goals, and those of the private sector, cannot and must not be left to chance. The long lead time alone that's needed to prepare an employee to perform effectively in the complexities of his assignment, much of which has been wrought by science and technology itself, makes advanced manpower planning mandatory, and I underscore advanced.

Although not universally practiced, it's no longer an uncommon experience for managers to recognize that advanced manpower planning is mandatory if an organization is to succeed in its efforts to recruit outstanding young people with the basic skills required, and to develop them to meet the additional, specialized skills needed to perform effectively; to motivate them to work enthusiastically and productively; and to seek a career in the organization which they have chosen.

Career development provides the basis for a systematic approach, a systems approach, which is the efficient application of human skills developed to their fullest potential for the achievement of organizational goals in the most effective manner. This process requires the clear articulation of organizational goals relating manpower and personnel activities and processes to these goals. Career development requires identification and definition of functions or functional areas in the manpower algorithm.

Career development requires the identification of occupational skills and characteristics of the individuals needed to perform effectively. It requires the identification of core skills and knowledge mandatory for normal progression in a career field. Career development requires an organized effort for identification and provisioning of individual training needed to obtain peak expertise and performance on the part of the individual in terms of organizational goals.

Career development calls for establishment of a talent bank to give employees the fullest and broadest visibility possible when filling vacancies, particularly key vacancies. It also gives management an instantaneous reading of talent assets and liabilities. Career development requires a system for taking the necessary steps to evaluate a program so that timely adjustments can be made to manpower training and programing.

What is the principal assemblage of objects which go to make up the system of career development or career programs that provides the input for manpower planning and the basis for manpower programatic action. They are:

Number one: intake. In addition to determining the input needs to replace individuals leaving the field through retirement, resignation and other turnover factors, intake must be related to

the need to meet planned expansion, retrenchment, mission changes, and work loads. We are seeing the tremendous activity that is going on in the Federal Government today and trying to provide skills to meet the demands of technological advances. The intake program should be primarily at the trainee or entry level, but we believe that it should consider all sources and provide for entry into the system at all levels.

Career Patterns. A career pattern must be developed for each career field. In the Department of Defense, for example, we have identified some twenty or so career fields. These career patterns are guidelines for progress in a career field. To be effective they must be just that -- guidelines. They must not lock the individual or management in a specific and inflexible path. They must be jointly developed by the employee, the supervisor, and management.

It is within the framework of the career pattern that the next object of the career development system is developed. That is training and development. The hallmark of training and development is what we call the Masser Training and Development Plan. It is a template against which employees measure their requirements and management evaluates the employee in terms of the training and development requirements for the individual as he progresses in a career field or in a function.

It is based on an analysis of the skills and knowledge needed to perform and grow on the job and in the career field. It provides for mandatory training, a committment on the part of the individual and management, which includes providing the necessary funds for his training and development.

The fourth object is career appraisal and counseling. Many people consider this to be the heart of the program. It is a planned program of periodic appraisal and counseling of the employee. It is the system under which career goals are established, reviewed, and revised in a planned and organized fashion. It calls for career plans to be developed, including immediate, intermediate, and long-range planning. Again, this is a joint effort between the employee, supervision and management.

The fifth object is the inventory referral and selection system, which includes the establishment of the talent bank that was mentioned earlier. It is the vehicle by which the concept of mobility is facilitated. It also provides the data base for manpower studies and analyses. It is used for determining overall agency employee and career development requirements and projections

Finally, a planned review, evaluation and feedback of the results of the career development for manpower planning and program adjustment is needed.

Of all the topics I've referred to, the one which undergoes the greatest and the most frequent change is training and development. It also requires the greatest lead time in meeting its requirements. It is in this area and in the area of manpower research and analysis that universities and colleges can play a leading role beyond its traditional one.

I'd like to call your attention to some recent actions that have been stimulated by President Nixon on the part of the Office of Manpower and Budget, and the Civil Service Commission in the area of executive development which will greatly accelerate the involvement of all federal agencies in career development programs. Each of the six components of the career development system must be examined in depth to determine their characteristics and relationships to one another if we are to determine the proper role of each in career development. Universities and colleges will play no minor role in this process by which the individual is provided the opportunity to attain his fullest potential on the job.

GOVERNMENT AS A MANPOWER CONSUMER

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Commission

Thinking of the Government as a consumer of your manpower is probably a mistake. There is no Government. There are lots of little organizations that use people. There's no government-wide approach to the use of manpower. It's important to keep that in mind as you look around at what the Government's going to be doing.

HEW, HUD, DOD and a lot of others have not done much of a job of looking down the pike for their manpower requirements. They don't have very good data on attrition. They have even poorer data on what growth is going to be, in terms of new positions. They probably aren't any more knowledgeable than you are about what reallocations are going to come about from the result of new legislation or new societal trends or anything else.

The Federal Government has not grown much in the last five years, and is only projected to grow about three percent in the next five years. That's not a lot of growth. That three percent growth is going to be mostly in the kinds of people that you grind out of colleges.

You might want to think about the local governments or the state and local governments. They're projected to grow 37 percent. That's a lot of difference.

The government employs college graduates of all kinds. We're not talking here about public administration people. These are professionals from every kind of discipline. That's probably going to be true at the local government, too.

For example, of the 265,000 professionals that work for the government, 81,000 are engineers and 45,000 are medical professionals; 35,000 are accountants and 17,000 are educators or teachers. In addition, there is a large number of people who have come into the Federal Government with Business Administration or Public Administration degrees who tend to work in the administrative areas.

There's also a great de-escalation going on. We're trying to get the average job grade down. To do that you replace higher-graded people as attrition occurs with lower-graded ones. There are certain occupations that seem to be running strong in terms of demand. There's still a very large demand for Social Security Administrators and Social Insurance Administrators which as far as we can tell will continue. People who know how to manage computer systems or data systems or who work in programs that use a lot of information systems are very much in demand. The personnel management-industrial relations area is still very strong. Physical sciences and engineering, although those two have dropped off a little in 1970 because of the cutbacks in defense and the NASA programs, will continue to remain strong because the government employs a very large number of those people. Just to keep up with the attrition they will remain strong. There's a need for people who have backgrounds in the security areas, police and law enforcement people.

We're a big customer for accountants -- in the Internal Revenue Service, and others , too. The medical field is still going very strong. There's a big demand for vocational training.

A large number of the graduates of your kinds of schools come into our management intern programs. The management intern program is a very strong program that leads to the higher levels of management.

The Federal Government is going to undertake an Executive Development Program. We've always had executive development programs but this is a major new thrust and has a lot of support. You should keep in mind that the federal employees don't just work in Washington. Most of them work out in the states and where your colleges are. Keep in mind that the real growth in government employment in the next ten years is going to be at the state and local levels.

What happens if we get new retirement legislation for federal employees? It's been in the wind for some time and keeps getting emphasis. We certainly ought to speculate about the possibility. It means a very large number of government employees will leave service earlier than we had ever anticipated, so we'll have a tremendous attrition to replace. There'll be a real tendency for more people to be brought in from the bottom.

There is a new act called the Inter-governmental Personnel Act. It is administrated by the Civil Service Commission and it's an attempt to upgrade the general level of people employed at the state and local governments. It's not a large program now -- only about 11 million dollars -- but it will probably grow. There's a lot of interest in this area. That means a big demand again for better-qualified, better-educated people

at the state and local levels, again driven by a federal program. Then the revenue-sharing program points in the direction of more effort being put on the state and local governments for spending the money. It's hard to believe that there will be any less employment for the Federal Government in these programs but there will certainly be more employment at the state level as the result of decentralization and revenue-sharing.

There is a far greater emphasis in the last three or four years on the management sciences -- quantitative skills, decision making, communications, information systems, all of these things that go into the management sciences. More and more agencies are demanding people who have training and skills in that area. I see a big thrust for that in the future.

We never know what's going to happen in the consumer programs. If the Congress passes laws in that area there will be a demand in that area that probably nobody's ready to meet. Certainly that's true in the broader medical programs. In total, it's a very dynamic situation. It's hard to look forward. There are a few guidelines but the demand is going to be large -- no question about it.

NATIONAL MANPOWER NEEDS FOR THE 1970'S

Harold Goldstein
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Manpower and Employee
Statistics
Department of Labor

One of the main reasons for this meeting is the tough job situation for graduates of the last few years. I think this is a temporary situation. It came about partially as a result of cutbacks in defense and space, in research and development, in expenditures on the part of the Federal Government, partly as a result of the recession in the economy, the budget squeeze, the cost squeeze that colleges and universities have faced and their inability to hire as many graduates for teaching jobs as they could have used, and as a result of a very large number of graduates coming out at this time because of the high birth rates just after World War II.

In the 1960's the colleges and universities expanded tremendously. In 1970 the number of bachelor's and first professional degrees granted exceeded one million for the first time in our history. In that decade the number of master's degrees increased by two and three-quarters times. The number of doctor's degrees tripled in the decade of the sixties.

We turned out more Ph.D.'s in this decade than in all previous history. These things coming together, the large supply of graduates, and the cutbacks in the demand, created this situation.

Now if it's temporary, what can we see for the future? Certainly the expansion of higher education will continue if trends continue. And looking at the population growth and the proportion of people who go to college, projections have been made that by 1980 the number of bachelor's degrees will increase by nearly 50 percent above that very high 1970 level. The number of master's and doctor's degrees will double in the next decade. In spite of this, it's likely that there will be a rough balance between the requirements of the economy for college graduates and the numbers of college graduates coming out.

In overall terms we will need over this next ten years, a total of about 10 million graduates to staff jobs that require college graduation and we will get about 10 million if trends continue. What so often happens with overall figures is that the overall balance conceals a lot of imbalance.

About 95 percent of college graduates go into white collar occupations. White collar occupations are expanding. These are the fastest-growing occupations in our economy. By 1980, half of the workers in the United States will be in white collar occupations. This does not mean that half the workers need to be college graduates, obviously, because the white collar occupations include clerical and sales, managerial and even some technical occupations which do not require college graduation.

Something like 20 percent of the jobs in 1980 will require college graduates. The greatest growth will be in the very rapidly expanding professional and technical fields. Employment in this area is expected to increase by 50 percent in the next ten years.

When I talk about an estimate based on the continuation of past patterns of change, past patterns of utilization of workers in various skills, past patterns of the growth and changing character of different industries in response to changing demand.

Projecting past patterns, professional and technical occupations are likely to grow by about 50 percent over this period. When you take account of replacement of people dying and retiring, the growing requirements for college training for many occupations that in the past have not required college training, you can see about 7 million job openings in this period for professional and technically trained workers with college degrees.

There will be imbalances. If you project the supply of new graduates, in line with the trends in the selection of courses that students have taken; if you just project the kinds of choices that students have been making in the past against the projected requirements, you find that the supply of graduates will be below the requirements in a number of important fields: physicians, dentists, chemists, physicists.

We're concerned about the unemployment among scientists. There will still be, by 1980, on the basis of these past trends, a shortage of chemists, physicists, counselors and dieticians.

There will be a rough balance between requirements and supply for a number of other important occupations: engineers, and optometrists. There will be more graduates than jobs in such fields as teachers, mathematicians, (one of the fastest growing occupations, but still a great many graduates coming out), and the major life-sciences.

The managerial occupations, again will offer a great many opportunities. There will be 2 million job openings in managerial functions. There will be more openings for college graduates in sales occupations, because of the professional content of many sales jobs.

Women are most predominant in the teaching occupation, which is expected to have the greatest oversupply. The traditional fields in which women work will not offer opportunities for all the women graduates and they have to consider getting into men's occupations. I should put men's in quotation marks because women have made a good deal of progress in getting into some of these fields, such as the social sciences, psychology, the health occupations, personnel work, accounting, mathematics and statistics.

Women will have to continue to make progress in those fields. Women will have to keep pounding at the doors in such fields where they have made relatively little progress as medicine, dentistry, law, engineering, the natural sciences, architecture and college teaching.

The implications for minorities are clear. The doors are opening in professional jobs for black and Spanish-speaking people. But they will need the education and the remedial education for a college education. It requires both effort on their part and measures on the part of institutions to make it possible for them to get the education that they need.

These imbalances between the kinds of occupations students are studying for and the occupational needs of society can be corrected if the students re-direct themselves. So one implication is better vocational guidance, better information for the students on employment opportunities. Institutions need to redirect their efforts toward the occupations in which there is the demand and to build up their curricular offerings where there is the demand.

We have to educate for occupational flexibility. We should avoid getting people into narrow slots.

There is room for change. We can creatively develop new skills, for which there would be a market if we anticipate these markets. This requires not only creative assessment of what the needs of society are, and how we can develop these skills but also it creates a need for funding of these training programs. We have to fund not only curricula but we have to fund the creation of jobs to do. There's creativity required on the part of institutions and on the part of society.

Certainly a major role of our higher education is in preparing people vocationally. We should not lose sight of the human goals of education. I'm not talking about the compartmentalization of students into vocationally-oriented, professionally-oriented education or liberal arts. I'm talking about a liberal education for everybody.

EDUCATIONAL RESPONSE TO MANPOWER NEEDS

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Department of Health, Education
and Welfare

There's no time in the history of this country when there's been a greater interest in vocational-technical education or preparation for employment. There's at least ten Governors in this nation who've recently called state conferences on the subject. In July of '71 Compact Magazine published by the Educational Commission of the states quotes New Jersey's Governor Cahill in a speech which he made before his Governor's Conference on Vocational Education.

This meeting included educators, lay leaders, business and industry leaders and labor leaders. Governor Cahill pointed out that there are four warning signals which indicate to him that our American public school system has not done the job it should for all young people.

The first warning indicator Governor Cahill pointed out is a critical manpower shortage in many vital areas. He pointed out that although unemployment exists in certain occupations, in many critical areas we have manpower shortages.

The second indicator is the high number of unemployable youths who leave our schools. Governor Cahill said, "I've been deeply disturbed by the number of business and industry leaders in New Jersey who've told me that many of our high school graduates cannot be hired because they have no saleable skills and in many instances lack the basic education and reading ability necessary even to hold semi-skilled or unskilled jobs.

A third indicator is the failure to halt the staggering increase in the number of welfare recipients. By failing to reduce the flow of youths into the pool of unemployed, the Governor said that we continue to add to the soaring welfare rolls of our nation.

A fourth major indicator, he said, is the increasing number of youth who are trapped in the cycle of despair which begins with dropping out of school and ends in juvenile delinquency, crime and recidivism. In many areas of our country, one out of every five teenagers between the age of 16 and the age of 19 is out of school and out of work. Particularly tragic is the way this has hit our black young people in the cities, where as high as 24 percent of the young black men in the 18 to 22 age bracket are unemployed and as high as 30 to 35 percent of young black

females in this age bracket are unemployed.

When we look at how the schools have done we have to look at drop-out statistics. Every year more than 800,000 young people drop out of school. When the drop-out studies are made they give two reasons and the number one reason is lack of interest in school. They also say they want to get a job but little do they realize that they can't get a job with no saleable skills. There just aren't those jobs around.

It is ironic to me to note that the Federal Government has tended, because of its priorities, to place greater emphasis on a college education than it should. The Federal Government is currently spending $14 for college education for every dollar it spends on vocational education.

In addition, the Federal Government spends $4 in remedial programs to recapture the school failures for every dollar it spends on preventive vocational and technical education. We've got to turn around this kind of spending. We must spend our dollars to prevent young people from leaving school without skills and adding to the pool of unemployables. We must do this at all levels -- federal, state and local. Let's begin to put emphasis on preventive education programs and not spend as much on remedial programs as we've had to in the past.

The National Advisory Council on Vocational Education, which is appointed by the President, has pointed out that we have in this country developed an unfortunate attitude toward vocational education. More than 10,000 randomly selected citizens in New Jersey were polled by a public opinion survey to get their ideas about vocational education. Most of these people responded that they liked the idea of vocational education, but it's for somebody else's children. They said, "My children are going to college."

Commenting on these findings, the National Advisory Council on Vocational Education said, "At the very heart of the problem is a national attitude that says vocational education is designed for somebody else's children. This attitude is shared by businessmen, by labor leaders, by administrators, by teachers, by parents and students. We're all guilty. We've promoted the idea that the only good education is an education capped by four years of college. This idea, transmitted by our values, our aspirations and our silent support is snobbish, undemocratic and a revelation of why the schools fail so many people."

We're fortunate at this time in the history of American education to have a United States Commissioner of Education who has committed his office to the concept of career education as the number one goal of his administration. We're fortunate to have a solid school administrator who's administered schools at all levels and knows the problems of not only the suburbs, the

rural areas, but also the big cities.

Commissioner Marland has pointed out that we need to develop a system in America of career education which eliminates in the secondary schools the so-called general curriculum. It eliminates the over-emphasis on college preparatory programs and gives young people ultimately, when the utopian situation is reached, two places that they can go when they leave the school. Either to employment with saleable skills developed in the school or to post-secondary education.

This particular career education objective of the commissioner has great implications for all of us in education at whatever level we work.

There are five fairly distinct levels but I should point out that career education is a multi-level program that begins at the earliest years of formal education and proceeds on a continuum all through the adult working life.

Basically, there are about five levels, none of which are really distinct. Level one starts in the elementary schools. We have more than 30 million young people in the elementary schools of America. Every child should have the opportunity to explore the world of work; to work with the tools and materials of technology; to learn about the man-made environment; and to learn about the dignity of work. Yet very few of our elementary school teachers coming out of your institutions know about the world of work, the man-made environment or technology.

This means a great change in the education of teachers. A different kind of an elementary teacher than we now have.

Level Two in career education would be a program of occupational information and exploration. This would be for all young people from grades six through ten depending on the school organization. Terry Sanford, when he was Governor of North Carolina, was able to get a $4 million appropriation in his state to start a program called "Introduction to Vocations" for all young people, which is not in more than half of their Junior High Schools. One of the problems of implementing such an occupational orientation program is that the colleges aren't turning out the kind of specialists that we need. The typical guidance counselor does not have the background. We need a new kind of person, which I hope you'd look into training. A broadly trained individual who understands the world or work, who can work particularly in group counseling situations with young people, and introduce them systematically to the world of work, will help the college-bound as well as the employment-bound.

A third level of career education is specific occupational preparation. In the past we've generally labeled this vocational-

technical education. This should occur at the later years of high school and at the fourth level, the post-secondary level.

I was pleased to learn from Vice President John Rowett of Eastern Kentucky that a study he just completed found that 134 of your institutions are offering career education programs leading to employment of less than a baccalaureate degree. This is most encouraging.

We have nearly 1100 community colleges in this country, about half of which are devoting their attention to career education. We hope they all will be doing so soon. There are about 1450 area vocational technical schools, none of whom offer degrees. About 6,000 private trade and technical profit-making schools have sprung up and have made a lot of money because the public sector of education is not taking care of the need at the post-secondary level.

But this is the area of greatest growth in the immediate future.

Level Five in the career education continuum is adult education. Education is a life-long process which should be available to people who want to re-train, to learn new skills, whose jobs perhaps have changed because of technological advance.

If we're going to make this a worthy goal of the Office of Education, there are several things that I think we need to do. We need to eliminate the separateness we have had in the past between vocational education and academic education. We need to get across the idea that education is both academic and vocational.

We have to develop more cooperation between the schools, between organized labor, between business and industry in many more joint programs than we have now. We have to get many more students out on work-experience programs. We have to do a better job of placing our graduates.

Every high school in this country should have a battery of placement specialists in their counseling office who concentrate on getting them into your institutions. If we're going to move this objective of career education we have to have specialists for the elementary school level who will be working in kindergarten through the sixth grade in the regular classroom getting across the ideas of work and the man-made environment and technology.

We need to train more teachers. I note that your institutions are responsible for training more than half of our teachers in this country. Some people claim there's a surplus of teachers and I'm sure there are in certain areas but in the area of technical

education, vocational education, guidance counseling, placement, the whole career development field, there's a serious shortage. And I would hope that if you're thinking of phasing out some teacher education, you re-direct it to this new emphasis, career development education.

Recently a book was published by Prentice-Hall which was a series of papers prepared by leaders in career education around the country, called New Directions for Education -- Career Education. The foreward is written by the Chairman of the House Subcommittee on Education, Roman Pucinski of Illinois. In the foreword he points out that now that recent legislative history has firmly established the principle of strong federal support for education, the next step must be for consolidation of many of these provisions based on the central thrust of universal, lifetime, comprehensive career education for all Americans from the early years until retirement.

Commissioner Marland has placed a great emphasis on this new career education theme. Currently there are six school districts which have been selected which will be directed through the Ohio State University Center for Occupational and Technical Education Research. Six school districts have been identified as "model school-based sites" for a K-12 career education program. Several research groups are working on an industry-based career education program, an alternative to the schools. Also being developed is a residential-based model that will emphasize residential settings for those who because of the isolation of their environment and their home setting cannot succeed in their existing location.

These models will provide the nation a place they can go to find out how this can be done.

These models are located in Pontiac, Michigan; Mesa, Arizona; Hackensack, New Jersey; Atlanta, Georgia; and Los Angeles, California.

Many of the state legislatures have taken action to move the field of career education, but I want to urge all of you, particularly from the state colleges and universities to try to become more active in this field. The Jersey City State College for example a few years ago, got a top executive of Western Electric to come in and head up a center for occupational education. After a year and a half, they were not able to afford this gentleman. His salary was several thousand higher than the president, but he stayed there a year and a half and helped them get the center going. It's one of the best centers of its kind in the country because a person from industry with a new look came in and helped Jersey City State College set this up.

I would urge all of you to become more actively involved with the state level people in occupational education and to work more closely with business and industry. Secretary Wirtz himself

now heads up the Manpower Institute which is a group of leaders from business, industry and the public sector who are going to be concerning themselves as a private group about manpower and how the nation meets its manpower needs, particularly through the public education sector. I hope that all of you will give your serious attention to this important objective that the U.S. Office of Education has made its number one goal -- career education for the 70's.

IMPACT OF THE PROFESSIONS AND ACCREDITATION ON CAREER EDUCATION

Jerry W. Miller
Associate Director
National Commission on
Accrediting

You should be reminded of the influence and the considerable power base of professions in government and in society and of the mechanisms they use to advance their concerns whether professional or monetary.

This should be pointed out because faculty and staff of institutions developing new curricula will sooner or later be confronted with the interests of professional groups. Principally this will happen because of two factors. One, in occupations where licensure is required, graduates cannot sit for licensure examination most often unless the program or curriculum has been approved or accredited by a professional accrediting body, or a state body usually controlled and dominated by the profession being licensed.

Secondly, in occupations where the professional association maintains some sort of professional certification or registration, graduates most often cannot sit for that examination unless their program is professionally approved. Institutions, naturally, are required to go along with these requirements because they don't want to deny their graduates such professional recognition.

Institutions offering educational programs of a strong professional identification or ties are faced with another problem. To offer such programs, institutions must have staff and faculty who are professionally qualified in the curricula being offered. These professionals, even though they've turned educator, are employed by their institution and are often more loyal to the wishes of their profession than they are to their institution.

The very same faculty are very active in their professional associations, sometimes helping to establish national policy which runs counter to the wishes and the best interests of their own institution. Existing professional groups monitor closely the development of new manpower categories and move quickly to assure that the interests of their members are not going to be jeopardized or infringed upon.

To use nuclear medicine technology as an example, professional groups in medical technology, pathology, radiology and radiologic technology over more than ten years jockeyed for positions of influence to determine the educational and registry requirements for that field.

The principle reason being, that nuclear medicine technology took a little chunk out of each of their areas. And in many cases, these very same existing professional groups attempt to encompass new occupations in their own associations as a means of protection. Institutions should also be aware that a professional association tends to look with favor upon programs which focus narrowly upon the competency that particular profession desires, sometimes requiring training over and above that which appears to be needed to practice competently in the field.

This solidifies the professional identification and lays claim to an area of special knowledge which they in turn claim should be given special recognition and privileges by society. Medicine to most people symbolizes professionalism in this country. One must emphasize that professions can be and often are helpful to institutions in establishing new programs. They can be a source of guidance in establishing new curricula, in providing consultants and in providing leads to find qualified faculty members. In general, they can help provide the focus which professional programs must have in order to prepare professionals.

By way of summary, associations of professionals and occupations are usually a force to be reckoned with in designing new curricula to fill manpower needs. If history in this area is any guide to the future, institutions cannot afford totally to accede to the wishes of the professional groups. On the other hand, they certainly cannot be ignored. Professional groups can be helpful and graduates will desire and need their recognition.

There is a guide available to institutions with regard to associations and their accrediting agencies which have been determined to have educational objectives which are generally compatible with the best interests of society, the Recognized List of Accrediting Agencies of the National Commission on Accrediting.

EDUCATION

Dick C. Rice, Academic Vice President of the University of Maine at Farmington, served as coordinator of the Education Action Group which was attended by some seventy participants of the conference. The panel of consultants was introduced by the coordinator, and each was requested to address the group on the new developments in education taking place in his respective area.

A new direction in education currently underway is the transition from the Experienced Based Teacher Education Program to the Performance or Competency Based Program of Teacher Education. Karl Massanari identified the essential characteristics of the Performance Based or Competency Based Program as follows: (1) The competencies to be demonstrated by the student, his knowledge, skills, behavior, etc., are derived from explicit conceptions of the role of the professional, stated to make possible assessment of student behavior, and are made public in advance. (2) Certain characteristics of criteria to be employed in assessing the competencies are congruent with the specified conditions that are to be attained by the student. (3) Assessment of a student's competencies is based first on his performance and second on his knowledge of interpreting and evaluating behavior. (4) The student's rate of progress through the program is determined by his demonstrated competencies rather than by time or course completion. Time is a variable rather than a constant. (5) The instructional program is designed to facilitate the attainment by the student of the specified competencies.

Other characteristics related to Performance Based Teacher Education Programs were listed by Dr. Massanari as being: (1) Emphasis in the program is on exit, not on entrance requirements; (2) the program is field centered, rather than campus centered; (3) there is a broad base of decision making including representatives of the college or university, the public schools, in some cases the community, and often the professional association; (4) instruction is individualized and personalized (some consider this to be an essential characteristic); (5) the learning experience of the prospective teacher is guided by feedback obtained from periodic assessment; (6) instruction is modulized; (7) prospective teachers complete the program when they demonstrate the competencies that have been identified as requisite for a particular professional role; and (8) preparation for the professional role is viewed as continuing throughout the career of the professional.

Jack Fasteau, of the U.S. Office of Education, the next consultant to address the group, described the direction being

taken by the Bureau of Personnel Development in its programs. Fiscal year 1972 was described as a year of transition from a program of categorical aid designed to meet the needs in specific educational areas to a program which would establish Teacher Centers or Educational Renewal Centers throughout the United States. What is envisioned for FY-1973 is the creation of a national network of Teaching Centers, starting with 200 and increasing in number to reach about 800 within four or five years.

The Teaching Center would be a multi-program affair with each center having a Board of Control on which will be represented the institution of higher education, the local schools, the community, labor, commerce, and industry. This board would establish priorities for its area and conduct programs in accordance with the priorities which it establishes. Programs would be funded for a minimum of five years, and the primary emphasis for the first two years would be focused on in-service education.

The role of the State Education Associations will be to assist with the selection of sites for the centers, provide developmental assistance, serve as data banks of information, and assist with the dissemination of the practices and procedures validated in the programs of the centers.

Several types of centers are expected to develop: (1) the state administered center with several satellite centers, (2) the state serving as coordinator of centers within its jurisdiction, (3) a combination of the first two with the state operating a center and providing services to other centers in the state, (4) the local educational agency operating the center, and (5) the college and university operated centers.

The role of the colleges and universities in the center program is likely to be twofold: (1) to operate and serve the teaching centers, and (2) to provide the training programs for the centers.

Francis E. Burtnett, Director of the National Center for Information on Careers in Education, was the third member of the panel of consultants to address the group. Though there exists a surplus of teachers in many instructional areas, he emphasized the needs that exist at this time for teachers of special education, early childhood education, and career guidance. In the area of pupil personnel service, elementary guidance is a growing field, and in secondary guidance there exists the need for an in-service retraining program to make these personnel more efficient as vocational counselors.

In the psychological, social, and health services, our consultant mentioned the redefinition of roles, and stated that in many of these areas careers for aides and para-professionals

existed. There is also a shortage of technicians and specialists to be employed as educational researchers, directors of school and community relations, television teachers, ombudsmen, educational buyers, and media specialists. Supportive services for educational institutions also present opportunities for careers as dieticians, office personnel, transportation specialists, computer programers, and managers.

Many of these careers are new, and programs need to be developed for the purpose of training personnel to fill these positions.

Dick Graham, Special Assistant to the Director of the ACTION Agency, described the "University Year in Action" program of this agency. The "University Year in Action" provides support for projects of 30 to 50 students who work off campus for a year in locally developed projects designed to alleviate the problems of poverty. These programs have precise learning objectives for which a full year's academic credit can be offered. ACTION provides up to $5,000 per year per student -- approximately $2,500 being allowed for the student and about $2,500 for the university, the latter covering cost of supervision on a student-faculty ratio of from 10:1 to 15:1 as well as travel and perdiem expenses of faculty when they are visiting students in the field. The students pay their own tuition. Programs began this fall at nine colleges and another eleven will get under way in January or February.

Colleges and universities which are not ready to take on a program of a year off-campus for full credit might begin with part-time participative education. The National Student Volunteer Program of ACTION can provide help through a series of kits which include descriptions of ten case studies in each of eleven areas including education, corrections, law and legal services, ecology, academic credit, etc.

Information on both the "University Year in Action" and the National Student Volunteer Program can be obtained by writing ACTION, Washington, D.C. 20525.

Don Bagin, Communications Coordinator of the School Public Relations program at Glassboro State College, reported to the group on the new developments in the area. School Public Relations is a rapidly emerging field with more job opportunities existing than applicants to fill them. There are only three institutions known to have an MA program in the field. The importance of this area is illustrated by U.S. Education Commissioner Marland establishing as a top priority the "restoring of public confidence in public education". Also by the theme of the American Association of School Administration for the year, "School Public Relations".

Graduates of this program have been placed in positions as public relations directors in colleges, schools, and other educational organizations and institutions. Some graduates have started their own public relations firms; some teach part-time and do public relations part-time; some teach and advise student publications; some teach undergraduate courses in "the role of the teacher in the community"; and some are liaison people between college administration and students.

Two vital areas of the program are these: (1) the faculty must have experience in the field -- not just theory, and (2) an internship-hands-on-experience is necessary.

The leadership role in the development of this field has been the National School of Public Relations Association and Glassboro College.

Mario Fantini, Dean of the Department of Education, SUNY, was the final consultant to address our group. He described an emerging model for education as it is developing in New York. This model, as presented, tied together many of the things expressed by the other consultants.

Studies indicate there will be a surplus of teachers during the next decade to fill existing vacancies in education which are not based on needs but on what the traditional educational program offers, while at the same time there are still areas in which needs do exist such as in special education, early childhood education, and teaching at the community college level. These areas in which shortages exist are obviously going to be where measurement for accountability sets in a new concept of the teacher whose performance is related to outcome. This shift represents a new kind of attempt of looking at quality. This quality control system is being considered by at least twenty states at this time. The whole concept here is the development of a new certification system. This new certification system is based on outcome of whether children learn or not and is opening up alternative ways of being certified so that instead of having one approach or the standard one, at least six alternative approaches are proposed.

The six alternative ways of becoming certified that have been proposed are, very briefly: (1) An improved version of the standard one which is not being discounted, since it is working for many, (2) a much more clinically oriented approach that is moving the teacher training from the campus to the school itself, (3) a kind of master of arts where prospective teachers take the liberal arts program and then a year of internship, (4) an individualized approach where a team of professors and a student map out a sequence that makes sense for the student and takes into account his talents, (5) the career oriented that focuses on the use of para-professionals, moving up the ladder from a teacher's

aide, to teacher assistant, to teacher associate to a full scale teacher, and (6) international education which is a new field for teachers in cross culture. The development of alternatives in addition to those listed is possible.

The key is to develop the performance-based certification that will illustrate that teachers are indeed performing in terms of the objectives that were set forth as being desirable requirements of the pre-service and in-service training program. The suggestion is to set up a network of teacher-learning centers, which may be another way of saying renewal centers, that specialize in different areas. This network of centers would be staffed by clinical professors. The urban centers would specialize in educational problems related to rural needs. It would be the function of these centers to certify that their products actually demonstrate the competencies required in the professional role the person is to assume, and if the person does not prove to be competent, to continue working with him to develop the desired competencies.

Two major thrusts in teacher training are seen: (1) there will be the move in the 70's toward quality while in the 60's it represented quantity, and (2) major emphasis will be placed on the retraining of professional educators to meet the true needs of education.

Following the presentations by the consultants, a question and answer period and a general discussion of the many new ideas which were presented took place. The greatest interest of our group centered on the Performance or Competency Based program of teacher training. Dick Wollin, a member of the group from Southwest Minnesota State at Marshall, described the competency based program established on his campus and answered many questions regarding this program that were directed to him by other members of the group. The advantages of the performance or competency based program -- for example, its ability to provide for individual differences as well as problems associated with it, such as identifying those competencies essential to good teaching, were thoroughly covered by this discussion.

The meeting of our action group on the second day found members of the panel clarifying specific points in their presentations such as identifying what seemed to be some of the promising leads or promising practices as well as identifying some of the really knotty problems associated with their respective programs. It also provided members of the group with the opportunity of seeking answers to questions which included: Are we running scared because of the threat of the performance contract? Is our present system really that bad? Isn't the performance based program a very narrow concept of the role of the teacher? How do you know that the new programs will be

better than what we are doing now? Are we moving too fast? What is a clinical professor?

At the closing afternoon session, our group was divided into sections with each participant meeting with the consultant in the area of his specific interest. This provided the participants the opportunity to engage in a more in-depth discussion of the programs which had been presented than was possible in the large group discussions.

* * *

Coordinator: Dr. Dick C. Rice, Academic Vice President, University of Maine at Farmington

Integrator: Charles Jackson, Vice President for Administration, Southern State College, Arkansas

Resource Persons:

Don Bagin, Professor, Communications Coordinator, M.A. Program, School Public Relations, Glassboro State College, New Jersey

Francis E. Burtnett, Director, National Center for Information on Careers Education

Mario Fantini, Dean, Department of Education, SUNY - New Paltz, New York; Consultant to Ford Foundation

Dick Graham, Special Assistant to the Director, ACTION Agency

Karl Massanari, Associate Director, AACTE, Director, Performance-Based Teacher Education Project

Jack Fasteau, Deputy Associate Commissioner for Educational Personnel Development, Bureau of Educational Personnel Development, U.S. Office of Education

ENVIRONMENT

Introduction

New guidelines for funding remain the same, 3.5 million for 1972. These include two provisions: 1) small grant of $8,000; 2) large grant, Title I. Large grant money is $30 to $40 thousand (used to get more money from other large funds).

George Lowe reported that there is no money for teachers to take courses and there will not be. He also suggested that new proposals should not be written until new guidelines are received. These should be published some time in November. To be considered, grants should be multidisciplinary and project-oriented to help communities. Also it was suggested that institutions should work through vocational education, Title III, and others in order to get large funds for environmental studies. In 1972, $25,000,000 is proposed for environmental projects.

Morton S. Ettelstein reported that water programs are designated to develop quality concepts of water and disposal capabilities. Plant designs are part of the effort to help technology to develop disposal plants. He indicated that engineers are also available as are engineering aids and chemical engineers.

To assist in the social dimensions of water resources, social scientists are brought in to develop social aspects of water disposal. Currently many vacancies in this area are becoming available. Personnel needs include 12,000 professionals who are now employed throughout the country. However, at least 24,000 will be needed in 1972 and 1973. Positions for these are already here. He also indicated that money is being available to train engineers and two-year graduates in technology from community colleges.

Programs sponsored by the National Science Foundation, according to Dr. Levin, include:

1. Student originated studies provide undergraduates opportunities to work on environmental problems in the summer. These involve human, social and physical environmental problems;

2. retraining of engineers for environment work;

3. unemployment problem of engineers -- called Presidential Internships for postgraduate work (these provide $7,000 per year to individuals to work in national laboratories concerned with environmental problems);

4. research applied to national needs (these include significant grants ($55,000,000 total) to help solve problems such as power shortage and other far-reaching national problems);

5. basic research grants;

6. college science improvement programs.

Dr. Levin also reported that the future of the NSF seems to show a shifting to societal problems -- in creation of programs of study an interdisciplinary approach is necessary. He urged that programs presently contemplated by institutions should reflect these changes if they hope to be given any kind of high priority.

In the area of environmental education, Jean Matthews reported that the purpose of their program is to develop public awareness of environmental aspects of that specialty. Additionally, the division of National Parks conducts programs in forms of workshops for teachers. She added that good prospects for employment in national parks and recreation are open to individuals interested in these areas.

Dean C. Pappas of the Corps of Engineers indicated that his area included military and civilian engineers and that the functions of his program were more societal than military. These endeavors in both military and civilian areas included:

1. Engineering

2. Research

3. Maintenance

4. Management

He went on to say that emphasis in functions seemed to be more in management than any other area. Future programs, he said, include five programs in waste-water management, as well as river-front management. He noted that the Corps is turning more to urban water development, but added that personnel needs seemed to be in personnel who are more knowledgeable in areas of the overall aspect of environmental problems. By that he meant that civil engineers must be oriented to societal needs by bringing a background of psychology, sociology, and anthropology to the area of urban planning in order to respond to environmental problems.

Recommendations from the committee for institutions to consider might include the following:

1. Environmental education can be done through general education (environmental literacy);

2. gear the curricula to accommodate students for occupations related to the environment;

3. materials and degree descriptions should be solicited from colleges having such materials so that AASCU institutions may use these in program planning;

4. AASCU should support funding to finance environmental education through legislation. This should be done through effective legislation and legislative contacts;

5. Green Bay document from the University of Wisconsin should be pursued as a point of departure for environmental studies;

6. USOE Environmental Education 1971 is an excellent source of information for environmental studies.

* * *

Coordinator: George L.B. Pratt, President, Arkansas Polytechnic College, Arkansas

Integrator: John P. Turano, Dean of the College, Adams State College, Colorado

Resource Persons:

James L. Aldrich, Director of Education, Conservation Foundation

Morton S. Ettelstein, Manpower Planning Officer, Division of Manpower and Training, Water Programs Office, Environmental Protection Agency

Louis Levin, Assistant Director for Institutional Programs, National Science Foundation

George Lowe, Environmental Education, U.S. Office of Education

Jean Matthews, Environmental Education Specialist, National Park Service, Department of the Interior

Dean C. Pappas, Project Engineer, Board of Engineers for Rivers and Harbors, Corps of Engineers

Barry Tindle, Executive Secretary, National Conference on State Parks, National Recreation and Parks Association

HEALTH

PREFACE

The provision for concentrated effort for a multiplicity of careers in the health fields is a new consideration for most AASCU institutions. For most of these, impetus for such provision may be derived more from the realization that teacher-preparation programs have been over producing teachers rather than from the national needs arising from sound programs to provide health educators and health care providers. Consequently, it is of interest to the AASCU that its members plan from reason rather than to sheer expediency in terms of health programs. There was no question from the interaction of the workshop participants that the respective AASCU institutions (hereafter designated as SCU) are indeed attempting to identify empathies and delineate guidelines for a rational approach to new career development programs in health. Most admit to naivity with respect to weaving their heritage of health personnel preparation, health care systems, and health profession standards into a framework familiar to higher education. All admitted that a basic need exists for SCU's to delve deeply into proper and rational approaches to prepare those entering the health profession. The answer is not found entirely in the preparation of more physicians, but also with the professional and technical preparation of those in allied health at the associate and baccalaureate levels. Concurrent with this is the proper utilization of all personnel based on analysis of training and responsibility.

The goals suggested to us by the planners of this conference elicited from those attracted to the health action group a variety of curiosities, experiences, frustrations, and ideals. Discussion was energetic and free-wheeling. Of interest, in that respect is that many significant points were readily identifiable during the meeting of this action group that were cited prior to and after this meeting by the conference keynote speakers, former Secretary of Labor Wirtz and Chancellor Mitau. It was obvious early, however, that identification of specific model programs would be premature, although certain barriers and pitfalls could be identified, and ingredients for opportunity were bound to receive general accord.

It is hoped that the following list of "concerns" and "consensus" paraphrases that which received general accord on the part of most of the participants and consultants in a meaningful manner. Arguments did not characterize the meeting largely because whatever issues were provoked were directed at others outside the AASCU realm or lacked the subsistence that will eventually arise from collective in-house experience. Had there been disagreements, it would have been easier to isolate areas warranting carefully styled discussion for those unable to attend this workshop.

This action group on health is a concerned group; they recognize the need for further and improved involvement in the proper preparation of individuals for health careers.

Concern 1: The national data estimating the need for allied health personnel for future years were questioned as to their reliability and validity because: (a) These needs are based on projections using existing professional identities and systems of health care delivery, and because many of these systems are apparently undergoing modification at this time. (b) Legislation could change suddenly the rate of this modification by funding certain developmental activities, i.e., enacting a program for national health care insurance. (c) Optimal placement of human resources in appropriate positions is not the index measured for manpower employment. (d) The justification for introducing new careers cannot be extrapolated from these data alone.

Consensus 1: The national data, if in error, underestimate the need for allied health personnel if goals of quality health care for all are to be met. We, therefore, encourage the establishment of SCU relationships with local and regional employers of health personnel (and subsequently high school and junior college career counselors) to effect mutual planning for legitimate short and long term goals.

Concern 2: There was difficulty in identifying and locating existing SCU allied health programs as well as determining or evaluating the representativeness of such programs as models for others to consider. Criteria are lacking. Existing variables (resources, opportunities, and barriers) in program development are in no small part provincial in nature. Existing externally imposed standards (licensure, certification, and registration), frequenting the health professions programs, are often in conflict with educationally defensible innovations.

Consensus 2: Despite the lack of definitive models, attempts by respective SCU's to develop health-related programs merit the attention of those who have the opportunity to plan for consolidation of effort in this regard. The AASCU Committee on Allied Health Programs should prepare and provide reference materials to interested

institutions. A further source of information and a strongly recommended body for affiliation is the Association of Schools of Allied Health Professions. This association initially gathered its membership from the university-medical school system, but since has broadened its base to encompass baccalaureate and associate degree health programs, many not associated with medical schools. National references will be of great assistance, but the problem remains for individual institutions to assess their own capabilities for allied health programs and the following elements of effective planning were identified: (a) Obtain administrative commitment to the need for moving suitably into allied health programs. (b) Locate information and available data on existing needs, services, resources, traditions, and barriers, both locally and regionally. (c) Gain familiarity with existing accreditation standards in the various health fields. (d) Involve appropriate representatives in the institutional, local, and regional health community planning for allied health programs and be available as an advisory group for subsequent program operations. (e) Assess the climate for change and identify the prime movers for program development regardless of the particular vested interest these persons represent. (f) Analyze possibilities of shared facilities and personnel within a community for mutual service-education interests. (g) Identify those programs that could or would be operational immediately, those that would be operational shortly with but little coordination or investment, and those that would be operational eventually with some development and study. (h) Outline the structure for these programs that would capture most of the resources and forces available to the institution; identify programs appropriate to the identifiable needs of the area and responsive to needed change. (i) Where mutually identifiable needs exist that are not approachable with available or traditional resources, innovative plans must be carefully considered. (j) Obtain administrative commitment to the proposed operational plan.

Concern 3: The role that SCU should take in preparation of allied health personnel was unclear, considering the fact that most current activity in this regard is based at the community college level for the technically trained AA program or at the university within the medical school complex for the "professional" programs. However, publicity of late has been focused on emerging professions (e.g., the Physician's Assistant, the Child Health Associate, the Radiation Technologist), careers that are uncharted by customary methods.

Consensus 3: The distinct desirability for state schools without formal structural ties with medical schools to enter the arena for preparation of health careers was evident. The focus of educational experiences may be more practitioner-oriented, distribution of funds may not be as competitive, and attention to the roles of allied health personnel in health care may be more

responsive to need and change. On the other hand, community colleges have limitations in assuring relative ease in further professional and academic growth of their graduates in that they are committed essentially to terminal technical programs. The SCU can serve in full service capacity as the change agent for those who have entered technical programs as well as a pathway or for those who enter the SCU program and wish to go on to doctoral level professional programs. The SCU program also has the distinct advantage in that many existing programs do relate to the allied health professions. Proper combination would provide more flexibility to the educational needs and interests of the student and consumer.

Concern 4: Health is an interdisciplinary and interprofessional concern. The programs for preparation for health careers are subject in many ways to the vested interests of the respective professions that heretofore have not responded to rhetoric. Program accreditation from without the institution as well as the familiar institutional accreditation is required or imposed when preparing personnel for health careers.

Consensus 4: A coordinated approach to the diversity of health careers appears basic to any legitimate SCU entrance into the health field. This requires an administration that supports fully the authority of the coordinating unit and whose vested interest is the relatedness of the programs and the eventual interdisciplinary delivery of health care. On the other hand, each program requires leadership of a fully qualified representative of that specific health profession and one acquainted with all the technical and esoteric considerations of accreditation for that and closely related fields. It is a fully functional idea to work toward overlapping core curricula permitting interdisciplinary classes where possible but maintaining the specific application of health concepts to each field involved.

Concern 5: Health manpower demands will not be met if the expressed society's needs alone are the focus of SCU attention. It is necessary to consider as well, the individual's needs as a consumer and as a potential member of the health care team.

Consensus 5: Individuals who aspire to service-oriented roles in society have a right to (a) Pre-admission counseling that explores the diversity of careers available in health fields at a time when youth as well as adults are contemplating career development programs. (b) Early academic and related practical exposure within the health fields. (c) Employable exits at different levels of education, and the routes of re-entry for continuing educational opportunities. (d) Pursue opportunities for new competencies required to maintain employability. (e) Expect opportunities for voluntary lateral shifts in career aspirations without returning unduly to the basic

level of entry. (f) Continuous opportunity for career development counseling, including curriculum planning and placement.

Concern 6: Education for health careers must be acknowledged as costly in terms of estimated efficiency indices of faculty-student ratios, the facilities required, and pay scales for qualified practitioners needed in faculty positions. The hospital-based education is no longer possible for defraying all of these costs, but other avenues of supportive budget coupled with efficient cost analysis are necessary. Some federal manpower improvement programs that have been authorized are not being funded. Grantsmanship skills among SCU officials, generally, have not yet transcended into the health fields.

Consensus 6: It must be recognized by the SCU approaching allied health programs that the faculty-student ratio, adjunct faculty qualifications, and other related characteristics of program considerations are legitimately different from the customary higher education norms. Funds, available to institutions demonstrating consolidation of effort, can be requested of the Health Training Improvement Act of 1970, Special Improvement Section. Institutions interested in preparing health personnel for teaching health personnel are referred to the Kellogg Foundation for information on project funds. The various sources for pursuing other interests within an allied health umbrella should be made available to the membership of AASCU.

PROGRESS REPORT GIVEN BY DR. BERGNER, COORDINATOR, TO THE ACTION GROUPS

At the Health Action Group we had 57 participants including the assigned coordinator, integrator, and the three representatives from government agencies (i.e., HEW, USPHS, and the accreditation representative). There was a broad geographic display of participants. The group was divided into about one third of the people representing institutions that have on-going programs in allied health, the remaining two thirds were gathering information for their respective institutions, and thus illustrated their concern for health. Generally: (a) This was a very strong heterologous group that responded to the invitation for a dialogue and an interchange of ideas. (b) There was a "catharsis of ideas"; there was opportunity for the panelists and participants to discuss each of the topics as charged by the task force. (c) There was a resolve to respond to specific reason for a program rather than to sheer expediency. There was a true demonstration of demand prior to fulfilling the request for a supply. (d) There was a recognition of the need for an evaluation and refinement of data. (e) Recog-

nition of current misuse and inefficient utilization of available health manpower resources, and of training/educational facilities; there was cognizance of the type and level of funding necessary. (f) There is a desperate need to communicate with one another, (with junior and community colleges, and with senior universities); sources of information were identified. (g) The need to provide necessary, appropriate flexibility, lateral and upward mobility in health programs was recognized. There was a consideration of the entry level, the re-entry level, and the spinoff level of students. (h) Programs cannot be defined or designed in isolation of one another; that is, programs must be multidiscipline, or a team approach. (i) There is a distinction between the needs of society and the needs of the individual; there is a recognition of pocket needs, regional, or provincial needs. (j) However, there was also a recognition of the production of acceptable credentials in the health fields, but one must consider the relevance of the training or education. (k) There is a need to "modify" the existing health system and how we must prepare for it, but we must not destroy it just to rebuild it. (l) Some discussion concerned the time factors necessary in planning and evaluation, that is, the time factors of how long does it take to "key up a program."

The group met later in the day following the meeting to further refine the barriers, faults, and the general means of designing a hypothetical or proposed model program. We recognize this workshop as only a step. We trust it is in the right direction! I personally think the group should be commended for their tenacity and for their willingness to tackle the problems.

* * *

Coordinator: John F. Bergner, Jr., Professor and Dean, School of Health Sciences and Services, Western Carolina University, Cullowhee, North Carolina

Integrator: Kenneth S. Clarke, Professor of Health Science, Mankato State College, Minnesota

Resource Persons:

Donald Conwell, Director, Office of Training and Staff Development, Community Health Service, Health Services and Mental Health Administration, Department of Health, Education and Welfare

Merrill DeLong, Chief, Allied Health Professions Branch, Bureau of Health Manpower Education, National Institutes of Health, Department of Health, Education and Welfare

Jerry Miller, Assistant Director, National Commission on Accrediting

WELFARE AND COMMUNITY SERVICE

The workshop on Welfare and Community Service was charged with the responsibility for discussion of the following topics:

1. Supply and demand (the marketplace).
2. Description of existing AASCU programs.
3. Current and envisioned federal programs.
4. Professional association perspectives and program ideas.
5. Design of proposed model programs for AASCU institutions.

Although the group felt that design of a proposed model was impractical in view of the conditions of the workshop, the diverse interests of the institutions represented, and the breadth of potential programs under the heading of welfare and community service, substantial attention was devoted to general discussion of the remaining four areas. The discussion centered generally around the analysis of the problem, the identification of new program needs, and most significantly the promulgation of a number of recommendations for consideration by AASCU and its member institutions.

It should be emphasized that the observations and recommendations mirror the expressions of various group participants and do not necessarily reflect the position of all, or even a majority of the workshop participants. Some, in fact, may contradict others. It is hoped, however, that the presentation of these may assist in the identification of issues of concern to institutional representatives as they attempt to develop and restructure programs to meet the challenges of the next decade.

Analysis of the Problem

In the descriptive material describing the purposes of the conference, it is noted that the AASCU institutions train more than 50 percent of the nation's elementary and secondary teachers. If current trends continue, between 1970 and 1980 there will be about 2.4 million openings for these teachers and 4.2 million newly trained teachers available to fill them. At the same time, positions in a number of other fields lie vacant for want of trained personnel, and new programs may be required to enable individuals to meet the requirements of emerging professions.

Workshop participants devoted a considerable amount of time to the analysis of the present situation and the identification of problems that require solution.

The following summarizes most of the observations of the participants:

1. Institutions of higher education may be vulnerable to the charge that they have not planned well for the future. This

charge may be countered by the fact that we have lacked sufficient data in the form of social and economic predictors to be able to plan intelligently. In addition, budgetary restraints usually do not permit institutions to undertake and implement long-range plans. Part of the problem, however, may be that institutions of higher education are past and present oriented.

2. Institutions of higher education have placed too much emphasis on preparation for a single occupation, and are, in fact, training individuals for positions which do not exist, or for which extensive re-training may be required, or which may soon become obsolete.

3. Accreditation policies, or institutional perceptions of these policies, have tended to discourage institutional experimentation and inhibit the development of new programs.

4. Fiscal problems and the state of the economy have not permitted institutions to respond to community needs.

5. There has been a significant separation between education and the rest of life.

6. Students are not well-informed of career opportunities when they select a program of study.

7. The rise of the volunteer movement may eliminate employment possibilities for many relatively unskilled, poor people.

8. The development of higher education learning experiments outside of the formal institutional structure suggests that the traditional institutions are not responsive to needs.

New Programs

Workshop participants did not devote a great deal of time to the identification of new career programs that could be developed. A number of areas were noted where institutions might focus their efforts. It was suggested that programs might be developed:

1. For individuals who will be employed in occupations related to early childhood.

2. For occupations related to environmental problems.

3. To train supervisors of para-professional.

4. To provide continuing education for welfare recipients.

5. For careers in human services.

6. To accelerate the upward mobility of the poor.

7. To meet educational needs of blue-collar workers.

Recommendations

1. Institutions should give greater emphasis to the development and implementation of long-range plans based on critical examination of social and economic indicators.

2. Multi-year funding patterns should be developed at federal and state levels to assume implementation of plans.

3. Institutions of higher education should take steps to increase interaction with those agencies that will employ graduates to be sure those graduates will be adequately prepared for positions they will fill.

4. AASCU should sponsor state or regional meetings with various accrediting agencies to discuss the impact of existing policies or institutional programming.

5. Educational associations should take a more active role in the design and development of federal legislation affecting higher education.

6. More permanent forms of discussion and information sharing should be developed.

* * *

Coordinator and Integrator: John C. O'Neill, Director, Bureau of Social and Educational Services, Rhode Island College

Resource Persons:

Joseph C. Howell, Director, Division of Human Resources, Office of Program Development, Office of Economic Opportunity

Aaron C. Alexander, Director, Office of New Careers, Department of Health, Education and Welfare

Enoch N. Butler, Manpower Development Specialist, Welfare Reform Planning Staff, Department of Health, Education and Welfare

GOVERNMENT AND PUBLIC SERVICE

The following represents comments presented by the three resource persons:

William Medina

1. Supply and Demand Factors - Government middle management employees should be aware that beginning in 1961 there was heavy recruiting of new frontiers personnel. This was assisted by the new Civil Service Exam of 1955, which was an all-purpose exam rather than specialized exams for each area. There was entry into the system at many levels.

During the Johnson administration there was an attempt to raise Civil Service personnel to higher levels which resulted in increased salary costs.

The result is many highly paid Civil Service people at a time when the government is considering moves toward economy.

2. Pressures - In the Autumn of 1971, it was determined that grade levels were going up too rapidly, known locally as "the grade escalation problem."

Agencies were ordered to move grades back over the next two years. This does not mean that people will receive lower pay but that relative proportions of personnel will be reflected at lower grade levels over the next few years. This will result in hiring at middle lower levels.

A new plan has been implemented to reduce government expenditures. Forty percent of savings would come from payroll with an average of 5% reduction of personnel coming from departments.

An attempt is being made to decentralize governmental agencies across the country. The third of three years of this effort is now in progress so the critical reduction of personnel is taking place in Washington.

Further pressures, from equal opportunity employment acts which are tended to force the hiring of certain types of skilled personnel, which makes the problem even larger. It should be recognized that every competitive market exists and that a student and a college must take the initiative if Federal jobs are sought.

3. Upward Mobility Programs - Programs are being stressed to upgrade lower level personnel for both professional and para-professional programs. There is a need for adult learning and colleges and universities can provide a considerable amount of assistance.

Gerry Nylroie

There is a need to educate people to deal with social problems. The emphasis on urban problems is not enough. There is a need for pepple who have tools for several programs and not just interest and motivation. Too many such programs stress theoretical ideas and do not provide people with tools.

Many urban programs are operated at graduate levels and there is a need for trained personnel which could be handled at undergraduate levels. We cannot afford to wait until the economic situation is resolved for the crisis will not wait.

Sam Sessions

There are no broad skills programs for management of public projects. There is a large need for people in areas of housing inspection, project management, and the like. Oddly enough, there is no classification or category for people under job titles of housing managers. This represents an important field for low income housing and middle income housing projects are expanding rapidly. There is a strong need for trained professionals.

Ensuing Discussion

It was pointed out that there are programs in urban planning, and other programs in public administration. It was felt that AASCU members could provide programs at the undergraduate level and that such programs could service many communities who badly need trained personnel.

It was recognized that many public employees have little training for their jobs especially in the smaller cities and towns, and this is a broad education opportunity which must be met.

It was pointed out that colleges could run co-op programs in public administration areas very effectively and several good examples of such programs were described in general. It was indicated that in these programs that government agencies have been very supportive especially on the regional levels, and that an appropriate contact might yield many cooperative job opportunities for such programs.

Housing management was discussed and an interest was shown in trying to develop programs. One problem was the issue of accreditation since several organizations seemed interested in being involved in such accreditation.

Another problem that was recognized and discussed was the need to retrain professors in these governmental areas. It was pointed out that several programs would encourage retraining and short-term job opportunities, such as during summers. Most governmental agencies would probably be cooperative should any interest be shown by professors.

GOVERNMENT AND PUBLIC SERVICE

Coordinator: Daryl R. Fair, Associate Professor of Political Science and Chairman of the Department, Trenton State College, New Jersey

Integrator: Houston G. Elam, Dean of the School of Professional Arts and Sciences, Montclair State College, New Jersey

Resource Persons:

William A. Medina, Chief, Executive Development and Training Branch, Office of Management and Budget, Executive Office of the President

Gerry Nylroie, Director of Professional Development, American Institute of Planners

Sam Sessions, Director of Professional Development, National Association of Housing and Redevelopment Officials

LIBRARY AND INFORMATION SERVICES

The group discussed the supply and demand of library personnel and information science personnel. Some of the points brought out in the discussion are as follows:

1. As far as ALA office is concerned, there is not a clear picture of supply and demand of professional librarians. A study made by ALA several years ago revealed that the demand was much greater than the supply; consequently, library schools started recruiting and training personnel to meet these demands. It was subsequently discovered that the demand was not as great as the study revealed.

2. Librarians are still needed, but funds are not available to employ them in certain vacancies.

3. The Federal Library situation looks discouraging -- the vacancy listings in the Federal roster have dropped approximately 50 percent.

4. It was indicated that jobs do exist in the information sciences, but the graduate from the traditional library schools is not trained to fill them. This is because many of the library schools have not updated their programs to coincide with the "new technology" of today.

A lengthy discussion ensued on the varied levels of librarianship -- ranging from the para-professional or library technician to the information, EDP, and subject specialist. The new directions-new programs in AASCU libraries require these types of personnel. Since the main concern of the action group centered on the Library Technicians, certain resources on occupational information pertaining to this category was made available to us from the ALA resource person in the group. Titles available from ALA included the following:

Occupational Definitions for School Librarians. American Library Association, Chicago, 1971

"Abstracts of proposals for Six Experimental in School Library Media Education."

Guidelines for establishing the programs for the preparation of Library Technical Assistants were discussed. The criteria established by the Library Educational Division of ALA were unanimously accepted and recommended as guidelines:

Library Education Division
American Library Association
50 East Huron Street
Chicago, Illinois 60611

CRITERIA FOR PROGRAMS TO PREPARE LIBRARY/MEDIA TECHNICAL ASSISTANTS

(Approved by the Board of Directors of the Library Education Division of the American Library Association at the ALA Annual Conference, June 1971. This statement now represents official policy of the Division.)

In revising the 1969 statement, the Committee considered recent manpower policy statements, related research studies, and changes in librarianship and use of technicians.

This revision is intended to serve as a guide for planning programs or for the evaluation of existing programs for Library/Media Technical Assistants. The vocational specialization is conceived as introductory preparation of personnel to fill beginning positions in the range of Library/Media Technical Assistant positions in a variety of situations.

Specialized technicians or technical assistants, in media production and development, computers, etc. when employed, will be expected to require a different training program, as will staff assigned duties at the Library Associate level.

Some of the courses designed for training of Library/Media Technical Assistants may be of value to other programs such as those for teacher aides and should be made available.

I. Library/Media Technical Assistants and formal programs.

A. Definition

A Library/Media Technical Assistant is a person with certain specifically library-related skills -- in preliminary bibliographic searching for example, or utilization of certain mechanical equipment. The tasks performed as supportive staff to Associates and higher ranks follow established rules and procedure, and include, at the top level, supervision of such tasks. The Technical Assistant categories assume certain kinds of specific "technical" skills. They are not meant simply to accommodate advanced clerks. While clerical skills might well be part of a Technical Assistant's equipment, the emphasis in his assignment should be on the special technical skills. For example, when duties and staff are insufficient to warrant a full-time Technical Assistant in any one specialization, the Library Technical Assistant duties may encompass a variety of responsibilities for audio-visual and other equipment and their operation, materials production, display, data processing and a wide range

of related activities.

The statements above are based upon Library Education and Manpower, a Statement of Policy Adopted by the Council of the American Library Association, June 30, 1970.

B. General statement

1. It is recognized that there are several ports of entry to library technical assistant positions. Formal programs in community colleges constitute one way. The term "community college" as used in this document refers also to a "junior college".

2. Completion of a formal program in a community college will not eliminate the need for on-the-job training but may alter the character and amount of on-the-job training required.

3. These criteria deal with formal post-secondary school level programs specifically designed for the preparation of Library/Media Technical Assistants. The graduates may be employed in a library, media, learning resources, information, or instructional materials center or in another organization engaged in library-related activities.

4. The criteria apply only to community college programs to prepare for the Library/Media Technical assistant level and are not appropriate to baccalaureate programs for preparation of Library Associates. The relationship of the Library/Media Technical Assistant to other personnel is illustrated in Figure 1. (See back page.)

C. Nature of the work of the Library/Media Technical Assistant

1. The Library/Media Technical Assistant performs supportive paraprofessional tasks under the direction of a librarian or other supervisor. As a member of the personnel team he carries out operations and services essential to effective functioning of the organization.

2. The work of the Library/Media Technical Assistant may fall within one or more functional areas of library or center operation, for example technical processes, public services, or audiovisual materials.

3. The tasks and types of work assigned to Library/Media Technical Assistants are more fully outlined below

under I E. Duties and Responsibilities. By way of definition it may be useful to state four exclusions from the work of the Library/Media Technical Assistant:

a. Work at the technical level requiring an in-depth knowledge and ability in production of material, equipment maintenance, programming, and so forth to the extent that specialized training at the technician level is required.

b. Tasks which require a full professional knowledge of librarianship or instructional technology and exercise of judgment based on a broad knowledge of library/media resources, their intellectual organization or their educational, informational, cultural, or scholarly use. Establishment of policies, materials selection, complex information and guidance services, are illustrations.

c. Work requiring other professional, scientific or specialized education. Editors, public relations, and other professional specialists fall within this category, as do positions for which subject competence is of primary importance.

d. Work in which the primary duty consists of typing, filing, stenography or other tasks of a general office nature which can be done by individuals with office-type specialized training or experience, e.g. secretary, personnel clerk, accounts maintenance clerk, file clerk.

D. Personal aptitudes and qualifications

For effective performance as a Library/Media Technical Assistant desirable qualifications include:

1. Basic intelligence demonstrated by satisfactory completion of secondary school education or its equivalent and ability to work at a level above the clerk.

2. Training or experience in library/media center techniques beyond that expected from a clerk or typist but without theoretical knowledge or subject background expected of a librarian or other professional.

3. Proficiency in basic clerical skills such as typing.

4. A service orientation and ability to work with others in as much as duties may involve work with the public and staff, possibly in a supervisory capacity.

5. Communication skills, including the ability to record, interpret, and transmit ideas and information orally, graphically or in writing.

6. The ability to use independent judgment and to make decisions within established policies and to recognize matters to be referred to the supervisor.

7. Acceptable personal attitudes based on an understanding of interpersonal relationships and a knowledge of the role of the library or media center in the community.

8. Aptitude for and interest in library/media center work.

E. Duties and responsibilities at the Library/Media Technical Assistant level.

1. Library/Media Technical Assistants provide support and assistance to the professional staff and may supervise clerks or other Technical Assistants.

2. Their duties are related to a variety of functions adapted to the objectives of the specific institution and assignment. These may include the performance and/or supervision of:

a. The physical preparation, maintenance and display of materials.

b. Maintenance of shelves, files and equipment.

c. Circulation work such as: registering borrowers; explaining lending rules; reserving, charging and discharging materials; keeping records; handling overdues and fines.

d. Acquisitions work such as: ordering materials (exclusive of selection); checking lists; keeping records; searching bibliographical data.

e. Catalog work such as: processing added copies and prints, and new editions; ordering cards; shelf-listing; filing, physical maintenance of catalog, and simple descriptive cataloging.

f. Information services work such as:

(1) Answering directional or factual questions. This may involve use of a limited group of reference tools

such as almanacs, encyclopedias, handbooks, dictionaries, periodical indexes.

(2) Locating bibliographical information for which complex searching is not required.

3. Special duties may be assigned related to local community needs and the particular qualifications of a Library/Media Technical Assistant such as:

   a. Ability to relate to specific minority and ethnic groups or those culturally or economically disadvantaged.

   b. Talent in performing and creative arts.

4. Other examples of duties, particularly in special libraries, are described in U.S. Civil Service Commission Position Classification Standards, Library Technician Series GS1411. Transmittal sheet 62, June 1966 to the Position Classification Standards identifies this series for ordering from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

II. Planning programs

A. Goal Statement

1. Any community college planning a Library/Media Technical Assistant program should draft clearly defined objectives for the program stated in terms of the educational results to be achieved. The goals should be consistent with general Library/Media Technical Assistant roles and relevant policy statements of the American Library Association. They should reflect the needs of the constituency the program seeks to serve. Cost estimates for initiating and developing the program should also be prepared and locations for field experience investigated.

2. The Library Learning Resource Center staff at the college will normally prepare the statement of goals and develop plans with guidance from the college administration. The staff will also recommend a local advisory committee.

B. Local advisory committee membership

1. Any community or junior college contemplating a program for Library/Media Technical Assistants should, as a first step, establish a local advisory committee.

2. This committee should be appointed in accordance with the administration policy of the institution and report to the president, the board, or other college administrator as may be appropriate.

3. Membership on the local committee might include:

   a. A representative from the state library.

   b. The director of a major local public library or his personnel director.

   c. A school library/media supervisor.

   d. The librarian of a local four-year academic institution or his designate.

   e. The head of a local special library or information center.

   f. A representative named by a state-wide library or media association or other relevant professional association.

   g. The librarian and the Library/Media Technical Assistant program director of the community college should be ex-officio committee members.

   h. Others may include: local or state civil service board members, placement counselors, deans of graduate library schools or their designates, department heads or supervisors in local libraries, etc.

4. Membership on the local advisory committee should be for two or three years with staggered terms.

C. Advisory committee responsibilities

1. Before any course is planned, announced or offered, the local advisory committee should:

   a. Review the statement of goals.

   b. Investigate local need for such a program and advise on conduct of a survey relating to employment possibilities for Library/Media Technical Assistants. No program should be announced or started without a positive recommendation from the local committee after such investigation.

c. Advise on qualifications for the position of the program director.

d. Advise on the nature and content of the curriculum based on total program objectives.

e. Ensure that program planning, resources, and fundings are adequate prior to initial course offerings.

2. The committee will provide continuing liaison between the community college and employers of supportive library staff personnel.

3. The committee should ensure that programs meet state and national standards.

4. The committee should meet as regularly as needed but not less than once each year.

5. The local advisory committee should also communicate freely on civil service, professional relations, etc. regarding the Library/Media Technical Assistant program at state, regional, and national levels and, if appropriate, establish formal organizations and channels to facilitate such communication.

III. Administrative and financial framework for programs

A. This is a specialized, occupational, non-baccalaureate program. The program should be administered under the appropriate instructional department rather than the library, and have its own full-time director other than the administrator of the college library learning resource center. The director would be expected to have a master's degree in a pertinent field. The director should never be the sole member of the instructional staff.

B. Financing of the program should be a part of the instructional budget of the college and not a part of the regular library budget. The program should be financed at a level and in a manner commensurate with other technical specialty instructional programs.

IV. Faculty

A. Minimum number of faculty for technical specialty programs

1. In addition to a full-time program director (department head) who should teach at least one course, there should be one (1) full-time faculty member as a minimum. Part-time faculty who bring a needed expertness and teaching ability are expected to supplement the regular teaching staff.

B. Qualifications

1. Faculty members should have teaching ability and competence in the areas in which they will teach as well as such certification as regional accreditation agency policies may require.

2. They should have practical and recent working experience relative to the subject taught.

C. Teaching loads

1. They should be commensurate with teaching loads of faculty in other instructional departments.

2. Preparation and student guidance counseling time must be provided.

3. Library learning resource center staff who teach should be compensated with released time for preparation and student contacts as well as for class time.

D. Encouragement of professional development

1. All teachers must be encouraged to up-date and expand their knowledge of current library/media practices, teaching techniques, and innovations in education.

2. Membership in professional library, media, and educational associations should be encouraged together with active participation in professional association work at local, state, regional, and national levels.

V. Facilities and equipment

A. College library learning resource center

Since the library learning resource center provides essential resource support for the curriculum and since it serves as a laboratory, programs for Library/Media Technical Assistants should not be started until the center meets the Guidelines for Junior College Library Learning Resource Centers in terms of space, collection, organization of materials, staff, and other minimum standards which will directly influence the quality of the program.

B. Classrooms, laboratories, and faculty offices should be available.

VI. Curriculum

A. Objectives

The curriculum should reflect program objectives and should be based upon a set of clearly stated goals for the total program. It should provide for upgrading of appropriate

level library/media center employees as well as recent high school graduates.

B. Course distribution

1. Generally, a program will be divided into three broad areas, all three of which are essential and interrelated in the preparation of Library/Media Technical Assistants. They are:

   a. General education courses.

   b. Library/media technical specialty courses.

   c. Courses related to the library/media technical specialty program.

2. General education courses should constitute approximately 50% of the total program, e.g., communication skills, English composition, social sciences, humanities, physical sciences, etc. The general courses should be selected from those offered for students planning to transfer to an upper division of a college.

3. Library/media technical courses should constitute approximately 25% of the total curriculum. The areas to be covered are described in greater detail in Appendix A. Content should include the following topics although course titles may differ:

   a. Introduction to the Library/Media Center field and types and forms of materials.

   b. Support operations for technical services.

   c. Support operations for public services (reader services, information, etc.)

   d. Practical experience and supervised field work (practicum) in local libraries in addition to the local community college library. This should be closely supervised and accompanied by seminar sessions.

4. Appropriate related specialized courses should constitute approximately 25% of the total curriculum. The abilities and interests of the student and the employment market may call for specializations in areas such as data processing, maintenance and operation of audio-visual equipment, materials production, story-telling, office management, and so forth. Not all students need

take the same courses. Special interest courses will normally be offered in other departments of the college.

C. Course sequence

A logical sequence of courses should be established. Generally in the first semester of the first year, the student would take only one library course, while he carries general academic courses. Field work should be preceded by established course prerequisites to make the field experience meaningful.

D. Relationship to education for professional librarianship

It should be clearly understood that the two years of work taken in a community college relate to the lower division of an undergraduate curriculum (i.e. the first two years). Lower-division undergraduate courses are neither substitutes nor waivers for upper-division undergraduate or graduate level courses in library service. The vocational courses in library service are unique to preparation of the Library/ Media Technical Assistant.

VII. Student recruitment and selection

A. Recruitment

1. Publicity relative to the program should be reviewed by the local advisory committee. It should clearly state the program objectives emphasizing preparation for employment as a skilled technical assistant.

2. Student counseling must be realistic in terms of the expectations of employment.

3. Counseling students as to expectations and limitations and relation of the program to professional education is essential. This may vary depending upon the institution and its relations or agreements with schools accepting its graduates for further education. While the general education (liberal arts) courses are transferable there should be no suggestion of the transferability of the technical specialty courses towards a baccalaureate or graduate professional degree program.

B. Student selection

1. Admissions should be based on regular local institutional requirements and related to the local employment market.

2. The program director should interview candidates for the Library/Media Technical Assistant specialization.

VIII. Student progress, placement, and follow-up

A. Records

Adequate student records should be maintained in the office of the program director to assist both faculty and students during and after admission as well as subsequent to completion of the program.

B. Student placement

1. Placement of graduate is an important and multi-faceted responsibility involving the program director, the faculty, and other members of the college staff.

2. Graduates should be aided in every possible way in finding suitable employment.

3. Prospective employers should be provided with statements of the qualifications of graduates.

4. Outstanding and successfully placed graduates and their employers often become the most effective advertisers of the program.

C. Follow-up

In order to improve curriculum and teaching techniques, evaluate training effectiveness, maintain good employer-employee relationship, and continue evaluation of total program, periodic follow-up studies of graduates are imperative. Therefore, provision should be made for follow-up studies.

IX. Supplementary training

The community college and the employer have responsibility to insure the availability of opportunities for supplementing, updating, and enhancing skills for the student who has completed his basic two-year program.

X. Library/Media Technical courses

Descriptions of this area of the curriculum are located in Appendix A.

Grateful acknowledgment is given for assistance in this revision to participants in an Institute for Training in Librarianship, Library

Technical Assistant Educational Programs, Rutgers University, August 23 - September 4, 1970, to Barbara Manchak, Rhua Heckart Ernst, Noel Grego, C. James Wallington, the American Library Association, Special Libraries Association and many others.

Respecfully submitted,

D. Joleen Bock
Robert E. Booth
Margaret E. Monroe
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Dorothy F. Deininger, Chairman

CRITERIA FOR PROGRAMS TO PREPARE LIBRARY/MEDIA TECHNICAL ASSISTANTS

Appendix

Library/Media Technical Courses

The Library/Media Technical courses recommended constitute approximately 25% of the total curriculum. An amplification of descriptions of content for the four subject areas recommended in Section VI B3 are outlined below. These do not necessarily coincide with course titles.

I. INTRODUCTION TO THE FIELD AND TYPES AND FORMS OF MATERIALS

Description

An introduction to library/media centers and their operations to include:

a. A description of types and their relationships, their use, resources and services.

b. The role of the Library/Media Technical Assistant in delivery of services.

c. Basic library/center tools and terminology.

Examples of Performance Objectives

The student will be able to:

a. List and differentiate among types of library/media agencies and their services.

b. Use basic library/media center terminology correctly.

c. Define the role of the Library/Media Technical Assistant in the overall staff patterns of library/media centers.

d. Locate and find a variety of materials through catalogs by main entry, title and subject.

II. SUPPORT OPERATIONS FOR TECHNICAL SERVICES

Description

Recognition of the role of the Library/Media Technical Assistant in the areas of acquiring and organizing materials form the decision to obtain to final processing to include:

a. Tasks necessary for this process. (The student will master these clerical tasks to the level that after appropriate experience he can supervise them.)

b. Knowledge of basic bibliographic tools such as National Union Catalog, Books in Print, Cumulative Book Index, and locally generated files.

Examples of Performance Objectives

a. Given order requests for various materials, for example, filmstrips, slides, records, microforms, books, the student will be able to:

   (1) Check them for possible duplication against the catalog, on-order, and in-process files.

   (2) Locate bibliographic data for ordering and prepare orders.

b. Given a group of materials received, the student will be able to check them against order files to indicate receipt and to identify discrepancies.

c. Given a group of materials to be cataloged, the student will be able to:

   (1) Match printed cards to materials.

   (2) Prepare descriptive cataloging for selected materials.

   (3) Completely process added copies, prints and new editions.

   (4) File and maintain catalog and other records.

   (5) Supervise physical preparation of materials.

   (6) Prepare information in machine readable form for up-dating automated records.

d. The student will be able to:

   (1) Assist in preparing materials and maintaining records for binding.

   (2) Order supplies and maintain stock.

   (3) Supervise inventory procedures.

III. SUPPORT OPERATIONS FOR PUBLIC SERVICES

Description

An understanding and awareness of the role of the Library/ Media Technical Assistant in user assistance such as answering directional questions and assisting with factual questions that can be answered in a limited number of reference tools and providing assistance to the readers in use of special equipment such as microfilm readers to include:

a. Patterns of user service requests.

b. Responsibility for maintaining environment of public service areas.

c. Assistance in community relations and client services.

d. Objectives and operation of circulation system.

Examples of Performance Objectives

The student will be able to serve within the established public service policies and routines and to communicate effectively within this area of responsibility. He should be able to:

a. Perform routines for:

(1) Circulation system (books, films and other materials).

(2) Fines and overdues system.

(3) Reserve material system.

(4) Inter-library loan process.

(5) Stack, file, equipment, and materials maintenance.

(6) Statistical records.

(7) Registration of borrowers.

b. Demonstrate ability to operate equipment required for use of special materials, such as projectors for all types of materials, recorders, reprographic equipment.

c. Answer directional questions or simple factual questions involving the use of a limited group of reference tools, for example: almanacs, encyclopedias, handbooks, dictionaries, periodical indexes.

d. Locate bibliographic information for which complex searching is not required.

e. Identify conditions under which it is necessary to refer a problem or user to his supervisor or other higher authority.

IV. PRACTICUM AND SEMINAR

Description

Carefully planned and closely supervised field work in one or more libraries or media centers in addition to the one at the parent institution. A variety of learning experiences will be included.

Group discussion and evaluation of the learning opportunity and an introduction to supervisory techniques and other employer/employee relationships will be the focus of the seminar meetings.

Examples of Performance Objectives

The student will be able to:

a. Perform a variety of tasks in different library/media situations.

b. Recognize the responsibilities of an employee in a library/media center setting.

c. Demonstrate an understanding of elementary supervisory techniques.

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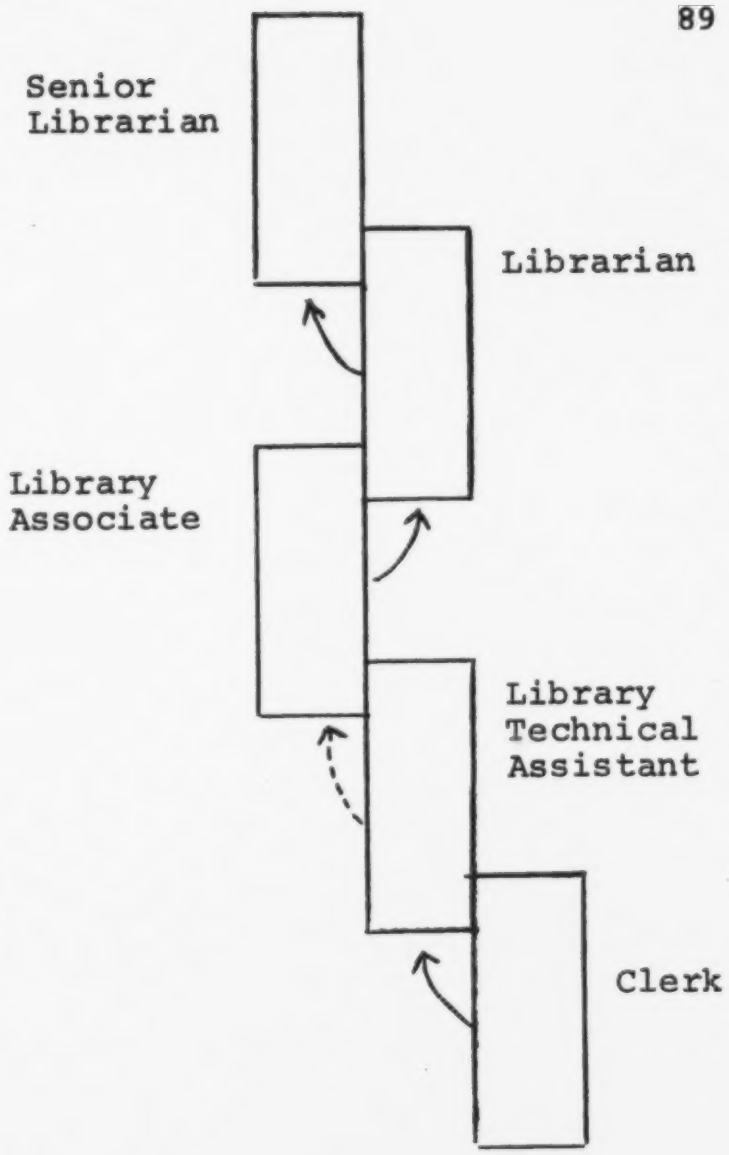
It was not easy to discuss or identify current and envisioned Federal programs and foundation interests in the training of Library Technicians. However, it is believed that after market research is done on the supply and demand of this group of positions, government and foundations would be receptive to proposal if the demands warrant.

Because of the diversity of libraries and library programs, the group did not think it wise to do a model.



* * *

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Integrator: Nicholas E. Gaymon, Director of Libraries
Florida Agricultural and Mechanical University, Florida

Resource Persons:

Peggy Barber, Director, Office for Recruitment,
American Library Association

Paul W. Howerton, Assistant Dean for Institutes and
Management Programs, Director, Center for Technology
and Administration, College of Continuing Education
The American University

Paul C. Janaske, Chief, Research and Program Development
Branch, Division of Library Programs, U.S. Office of
Education

James W. Moore, Director, Audiovisual Archives Division
National Archives and Records Service

Paul Vassallo, Chief, Congressional Reference Division,
Library of Congress

JUSTICE

The first meeting of the Justice Action Group convened at 1:30 p.m. on October 12 in the Committee Room of the Shoreham Hotel, Washington, D.C.

The coordinator, Dr. John D. Rowlett, welcomed those in attendance and introduced the persons selected to assist with the program planned for this section of the Conference. Dr. Rowlett next outlined the objectives of the workshop and pointed out that prior to an open discussion involving those in attendance, each of the resource specialists would present introductory remarks concerning the topics to be considered.

Following presentations by each of the resource specialists, and throughout the remainder of the meeting, the discussion, though varied, generally related to the selected topics. A synopsis of the key points of the discussion as they relate to workshop topics follows.

There is a dearth of reliable manpower data which would yield accurate quantitative data relative to supply and demand in criminal justice occupations. Seemingly, there has been no organized effort to ascertain accurately the opportunities, nationally, for employment or the number of persons annually being prepared for employment by the numerous institutions now engaged in criminal justice education.

The most recent study of correctional manpower (1969) indicated that, in 1967-1968, approximately 110,000 corrections personnel were employed to service the 1,115,000 persons in correctional contact. It is estimated that in order to maintain this ratio (1:10+), approximately 55,000 new employees will be needed by 1975. Of this number, about 8,000 will be needed to staff positions in correctional institutions and the remainder (47,000) will be needed to handle caseloads and service community based corrections programs.

It is further expected that among the 55,000 new corrections employees needed by 1975 will be a demand for 3,500 social workers. By this time, it is anticipated that 6,000 social workers will graduate and seek employment. On the basis of past experience, however, only 600, or 10 per cent, of those qualified and employable will apply for the 3,500 positions expected to be available.

The annual turnover rate of approximately 13 per cent in the corrections field, together with an increasing need for additional employees, indicate a high demand factor for the future in this field.

While reliable data are not available to quantify the actual need for personnel in the law enforcement field, it was equally disturbing to workshop participants that there are no manpower statistics which reveal the total number of persons being graduated annually from the large number of collegiate-level criminal justice education programs now in operation in junior and community colleges, senior colleges, and universities throughout the nation. During the discussion, it was evident that some participants viewed with concern the possibility that criminal justice manpower supply might, in the future, exceed demand.

It was estimated that there are approximately 400,000 persons now employed in law enforcement departments. While these departments, typically, may be operating with a deficiency ranging from 2 to 30 per cent of their personnel authorizations, it is not uncommon to find that as few as 1 in 20 applicants currently fulfilling minimum departmental requirements for employment. In addition, there is an average annual attrition rate of about 10 per cent, and departmental personnel authorizations are estimated to be increasing at an average of approximately 10 per cent per year. It was the concensus of the group that although reliable data were needed in order to project accurately the manpower supply and demand in law enforcement, there is now a strong demand for personnel prepared at the collegiate level. It is expected that this demand will continue.

Criminal justice education programs that have emerged in recent years in institutions of higher education have few common elements. They were classified by participants as tending to range from police skills-oriented, or "academy" type curricula, to those comprised of a collage of courses that seemingly happened to be available within an institution.

Resource specialists pointed out that clear-cut priorities for criminal justice education programs have not been established and, as yet, no national attention has been concentrated on criminal justice curriculum development. There is an obvious need for research and innovative approaches to curriculum development which will result in the development of model curricula. LEAA plans to commit funds from the current appropriation to curriculum development and will place a high priority on projects that focus on innovative curricula.

It was pointed out that although numerous collegiate level programs have evolved in recent years, there is an immediate need for quality criminal justice programs to prepare forensic scientists and persons with proficiency in computer sciences. In addition, efforts should be made to develop and implement, where possible, programs to free the policeman of many routine duties and channel his energies to other socially useful activities.

Prior to the close of the workshop, participants proposed several broad characteristics which they would expect to find in a model criminal justice program. These were:

1. Use of broad-based advisory committees to provide input for program planning and evaluation.

2. Content and experiences designed to promote the development of managerial personnel.

3. Curriculum options to emphasize data processing and forensic science.

4. Full utilization of available community resources.

5. Curriculum component focused on human needs.

6. Required preservice internship in a criminal justice agency prior to completion of the academic program.

7. Planned vertical articulation which will permit graduates of a two-year program to move, with a minimum amount of difficulty, into a baccalaureate program.

* * *

Coordinator: John D. Rowlett, Vice President for Research and Development, Eastern Kentucky University, Kentucky

Integrator: William E. Sexton, Dean, College of Applied Arts and Technology, Eastern Kentucky University, Kentucky

Resource Persons:

Melvin T. Axilbund, Assistant Staff Director, Commission on Correctional Facilities and Services, American Bar Association

Edward H. Braxton, Teacher Education and Curriculum Development Specialist, LEAA, Manpower Assistance Development Division

Don Clasen, Law Enforcement Educational Specialist, Department of Justice, LEAA, Manpower Development

Lon Rowlett, Director, Personnel Division, Baltimore Police Department, Maryland